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Undulant Fever

ALICE C. EVANS

FIVE years ago undulant fever was rarely recognised in this country, but now it is a fairly common disease. That does not mean that it is spreading at an alarming rate. Probably there are no more cases today than there were five years ago, but doctors have learned to recognise the disease. The events which led to its recognition may be related briefly.

Undulant fever became known as a disease entity during the Crimean War when many soldiers sickened with a prolonged fever which differed from typhoid. Later, it was recognised as a common disease in Mediterranean countries, and for many years it was supposed to be almost limited to that region. Hence it was called Mediterranean, or Malta, fever. Although it is now recognised all over the world, it is probably more prevalent in Mediterranean countries than anywhere else.

In 1886 a young English medical officer by the name of David Bruce (he became Sir David) was ordered to the garrison on the Island of Malta. He took with him his young bride who became a valuable aid in his research work. Being of an investigative nature, interested in bacteriology, he spent his spare moments studying the cause of the prolonged fever which disabled so many of the soldiers in Malta. From the spleen of a fatal case he cultivated the causal organism, a small bacterium which he called *Micrococcus melitensis*, micrococcus meaning a minute spherical body.

The next important event in the history of undulant fever occurred about ten years later. (Most of the important events in the history of undulant fever have occurred at approximately ten year intervals.) In 1897 a Danish investigator by the name of Bang announced that he had discovered the cause of contagious abortion, a widespread disease in cattle. Neither Dr. Bang nor anyone else suspected that his discovery was of interest to human medicine. It was almost thirty years after this discovery before its significance to human medicine became apparent. When Bang examined under his microscope the bacteria which he had found to be the cause of contagious abortion in cattle, he saw minute rod-shaped bodies. He called the organism *Bacillus abortus*, the name bacillus meaning a rod.

Almost another decade rolled around after Bang's discovery before the next step was taken in the knowledge of undulant fever. British army officials wanted to find out means to prevent the high incidence of undulant fever in their troops stationed

in Malta. For this purpose they sent a group of investigators to that island headed by Bruce. The reports of this Royal Commission announced two fundamental facts concerning undulant fever in Malta: First, that the chief source of human infection is goats, which may excrete the causal organism in their milk, although they appear healthy; second, that people may live in Malta without contracting the fever if they avoid raw milk.

Thus the status of knowledge on undulant fever remained for another decade, and it was then, in 1917, that I had an opportunity to make an observation which led (after about another decade) to the recognition of undulant fever in countries all over the world where cattle are the milch animals. The task had been assigned to me to study the bacteria which are present in cows' milk when it is drawn, coming from the inside of the udders of healthy cattle. Among other bacteria, I found Bang's bacillus in the milk, as others had before me. It did not seem to me nice to think that this organism which can cause contagious abortion in cattle is present in much of our raw milk. I wanted to know more about it, so I compared it with this and that bacterial species, among others the *Micrococcus melitensis* of Bruce, because that, too, was known to be excreted from the udders of another species of milch animal, the goat.

It may be conjectured that the reason these two organisms had never been compared before was on account of their conflicting names. If Bruce's organism was spherical, and Bang's was rod-shaped, the early bacteriologists would have thought it heresy to consider a possible relationship between them. The science of bacteriology is still young, and there are many things yet to be learned.

It was a great surprise to me to find that Bruce's micrococcus and Bang's bacillus are so nearly alike that ordinary laboratory tests cannot differentiate them, although, as further study revealed, they can be differentiated by the intricate agglutinin absorption test. Why, then, did we not have undulant fever in this country? It was five years before that question was answered; we do have it. In 1922 a case of undulant fever caused by the *abortus* type of the organism was recognized in the Johns Hopkins Hospital in Baltimore. It was the first proved human case of *abortus* infection ever to be reported in the world's literature on undulant fever. Soon afterwards a report came from South Africa, followed by reports from various far corners of the world, stating that undulant fever is contracted from cattle.

Hogs also are infected with contagious abortion, and for some unknown reason the swine strains of *abortus* are more virulent for man than are the cattle strains. The organism seems to be able to gain entrance into the body more readily through the skin, particularly through abraded skin, than through the digestive tract. Hence the farmers, veterinarians, and workers in slaughter houses who have to handle infected animals are particularly susceptible to infection.

Many cases of undulant fever are contracted by drinking raw milk, but fortunately children seem to possess an immunity. Since they are the greatest milk drinkers the disease would be expected to be most common in them if it were not for this natural immunity. Few of the reported cases have been in children.

For the protection of milk consumers the preventive measure is quite obviously the same as that practiced for the prevention of other infectious diseases that are spread by milk; namely, pasteurization. Those who

are able to pay the price for certified milk may take raw milk with a reasonable degree of safety, if the certification guarantees that the milk is from an abortion-free herd. No milk other than that so certified, or pasteurised milk, can be considered safe, for the cattle disease is wide-spread everywhere in the United States. It is fortunate that the preventive measure of pasteurisation is so easily available.

It is now about eight years since the first case of undulant fever due to abortus infection was recognised in this country. For the next three or four years only a few cases in gradually increasing numbers were recognised in several centers where research in this disease was being conducted. Then, to round out the decade intervals of important events in the history of this disease, 1927 is distinguished as the year when the physicians of this country began to be aware that undulant fever should be considered as a possibility in every case of fever of undetermined origin. In that year, 217 cases were reported. By the next year the information about the disease was more widely disseminated, and 649 cases were reported. In 1929, the reported cases numbered 1,301, some in every state in the union.

The rapidly increasing numbers of reported cases signifies nothing more than that physicians are learning to recognise the disease. It is interesting to speculate for how many more years the figures will continue to multiply. In other words, what fraction of the actual total of human cases of abortus infection in this country does the figure 1,301 represent? Several considerations may be offered. In the first place many cases that are recognized are not reported because the law does not require it. Probably most of the acute cases which enter the large hospitals are now properly diagnosed, and this may be true in the country districts of some states where a campaign of education on undulant fever has been carried on for several years. But in some states there has been little attention paid to it, and there must be many undiagnosed cases occurring on the farms, where raw milk is used as a rule. Further, there is one type of case, the ambulatory case with chronic infection, which is not yet being recognized. No one knows how many such cases there may be in this country.

The nature of undulant fever explains the difficulty of diagnosis. There is a manifold variety of symptoms, sometimes simulating one disease and again another. The only suggestive characteristic is the wave-like temperature curve, a single wave covering a number of days or sometimes several weeks. Not all cases, however, give this undulating temperature curve. Cases with high fever have been suspected to be typhoid and when the Widal test failed to confirm the diagnosis they were called atypical typhoid fever. In cases in which chest symptoms were prominent, the patients were sent to a tuberculosis sanatorium. In some cases joint pains are the most conspicuous symptom. In such cases the diagnosis was arthritis. Thus the lack of characteristic clinical signs in undulant fever accounts for the errors of diagnosis. If, however, the physician is "undulant fever-minded," he will have serological tests made. In most of the acute cases the results are definite, but in many of the chronic ambulatory type of cases the serological test gives negative results. With a half sick patient giving no clinical evidences of disease, and negative serological tests, the diagnosis of neurasthenia is almost inevitable. It is a severe blow for a patient whose

spirits are already depressed by continued ill health. In the program of undulant fever investigations perhaps the most urgent need is a test which will aid in the diagnosis of the chronic type of case.

The patient with a prolonged undulant fever infection is under a severe trial. The painful symptoms come and go in waves like the temperature curve, and hope and discouragement alternate with the waves. Robert Louis Stevenson expressed very well the great trial of the frequent rise and fall of hopes. He wrote:

> Resignation may follow after a reasonable time upon despair; but if a man is persecuted by a series of brief and irritating hopes, his mind no more attains to a settled frame of resolution than his eye would grow familiar with a night of thunder and lightning.

There is no cure for undulant fever. The defense mechanisms of the patient must fight the battle alone. Sometimes that battle is won in a few weeks; more often it requires several months; but sometimes it requires years. Four or five per cent of cases are fatal. The only aid which can be given by doctors and nurses is symptomatic treatment. The benefits of such treatment will be best realized if it can be given with a sympathetic understanding of the disease.

How the Local Health Organization Can Aid the Nurses in Industry

MY own limited experience is that the first and most important thing which the public health department can and must do for the industrial nurse is to recognize her place in the public health program. I regret to say that there are industrial nurses who have not realized that they are public health nurses, in the broader interpretation. They have not recognized it because we—public health officials—have not recognized them. We have allowed them to become engrossed in the detail of their daily work, and so to miss the larger and wider vision of service which might open out before them. We cannot expect management, which is intent upon successful operation of its business, to point out the opportunities for service which lie at the door of every industrial health nurse. That is not their job; it is our job.

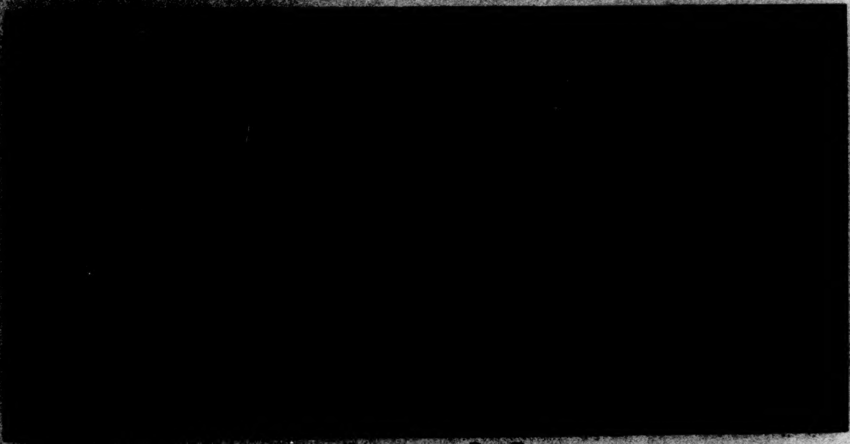
Recognition of the place of the industrial departure from the narrow conception of this nurse as a roller of bandages, a purveyor of little pink pills or white tablets, a swabber of iodine or its latest substitute. It means widening the outlook, making of her something more than a guardian of the payroll through accident first-aid service, a watchdog of the employers' liability costs through the same channels. It does not mean abandoning these, for she has and must give proper regard to the obligations which she owes management. It does mean adding other functions.

Whether she wills it or not, the industrial nurse becomes a health educator, either a good one or a bad one. The people in the shop or the office or the store come to her for advice. If she knows her job she will welcome them and will strive to be found so that she may be a safe source of information. In this, the public health agency can help her.—Excerpts from a paper by W. W. Bauer, M.D., read at the Round Table on Industrial Nursing, Biennial Convention of the National Organization for Public Health Nursing and allied nursing organizations, Milwaukee, June 1930.

Nursery School Experience

Its Value to Nursing School Students

AMY M. HOSTLER, B.S.



SAND PLAY—AND A SUN BATH

THE pediatric nurse, like the nursery school teacher, automatically becomes a mother substitute. She is forced to meet all the child's needs throughout his waking day and even during his resting or sleeping periods. Nursery school teachers have always realized that this responsibility entailed more than an ability to wash, bathe, and dress, for unless a child is very *sick*, his mind is constantly active and his development depends to a great extent upon his total environment, with the human element predominating. Educational directors in schools of nursing, as well as many doctors, supervisors, head nurses, and even student nurses, are now appreciating that the child in the hospital or the sick child in the home will be happier and a better patient if he is cared for by a nurse who understands that child training requires a technic as detailed as physical child care and one that is far more subtle and difficult to acquire. No thoughtful person would deliberately set out to cause a child to be dishonest, yet I should say that it is a rare case where adults are not responsible for causing the disobedience, temper tantrums, timidity, fears, and dependence, that are found in the child from two to five years of age. This distressing behavior comes about because some adult handling the situation did not properly understand adult-child relationships or appreciate the skill needed to promote the development of healthy behavior.

In the well organized home, most of the routine day of the child parallels that in the nursery school. Many of the same routines are carried out in children's hospitals. A *procedure*, or *what* the child does may differ, but the *technic*, or *how* he does it can remain the same in each of these situations. And always there should be many common objectives. Some of these

are unquestioned, such as the establishment of habits of personal cleanliness or the development of some simple motor skills. In a hospital, the latter may mean only the handling of a spoon or a fork at the right age level. Until recently, however, such outstanding needs as the development of self-control in overcoming temper tantrums or freedom from fears were often ignored in the larger institutions. If it is a life or death matter one might not raise tremendous objections to this. But when lack of training, or the usual unfortunate time element, enters to cause a lack of consideration of those vital needs for proper mental and social growth, it is time for all those interested in child development to do a piece of home missionary work that will force some facts into the consciousness of the entire medical and nursing group. How can we hope to work out public health programs that will carry on unless we can give the youngest children more than toxin-anti-toxin, and vaccines? Preventive measures of that sort we demand, but children must in those early years learn to want health and want it so actively that they will strive for it in both the physical and mental sense. We cannot afford to send children into hospitals for convalescent periods, or for research purposes, and have them come out in better physical condition but with an apparent regression in social adjustment and a new development of self-consciousness or fears. There are many examples of this very thing: the child who never had anything to do with his hands in the hospital but was kept in bed for research study and who came home masturbating so constantly that he could not go to sleep without that stimulation; another who came back to nursery school and cried each time our colored maid entered the room—because she was sure it was the "bogey-man" she had been hearing so much about at the hospital. Are these cases as rare as we'd like to think?

Patty Smith Hill, Professor of Education at Teachers College, has said:

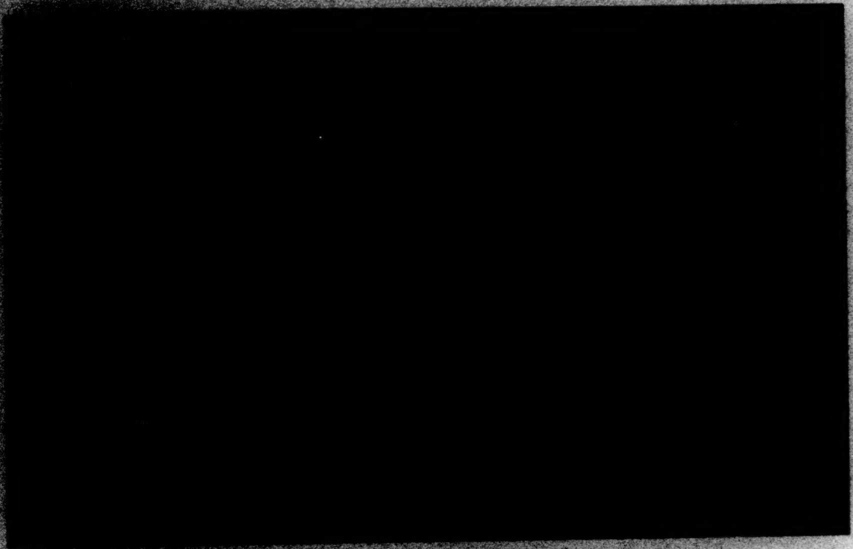
> Fear is so effective in manipulating the weak and helpless and is so easily mastered by even a moron adult guide, that it has been, and still is, the most popular method for gaining control over immature creatures. It leads to prompt and effected conformity, but brings in its wake evils which sap the moral fiber of honor and truthfulness. Self-protection from the undeserved threat and punishment leads almost inevitably to deception, [illegible], [illegible], or timidity. Timidity in turn robs the child of confidence in himself and sets up habits of self-depreciation which makes it impossible to meet difficulties with morale. What powers we have are so crippled by self-depreciation that continued accomplishment is impossible. While the ego-centric child is more annoying to those around, self-depreciation is more deadening to achievement and progress.[1]

Professor Hill also says that "in these early years virtue, honor, cleanliness of thought and feeling, courage, and reverence, are more contagious than measles or whooping cough." She suggests that as rigid a quarantine against contacts with low ideals be set up as those enforced for physical diseases.

For several years, I have had the keenest interest in watching nurses in their work with young children. My interest probably originated in my contacts with the school of nursing in our own university. As time goes on, I am more and more convinced that any nurse who expects to deal with children must have some chance to know the normal well child, and pertinent theories of child development, and she should have practice in this field covering normal behavior.

The reasons are obvious. Let me list some questions that you might

[1] *Childhood Education*, Vol. III, page [illegible].



Much Muscular Effort Is Spent in Constructive Play

answer in regard to some child you have known in the hospital who was not desperately sick, such as a convalescent pneumonia case. Check in your answers and then compare with the correct list below:

	Yes	No
1. Was he coddled physically or mentally?	___	___
2. Was he allowed independence of thought and action as far as possible?	___	___
3. Was too much expected of him so that he was driven some of the time?	___	___
4. Were any useless or unreasonable demands ever uttered? (Such as "Stand up now and sing for the doctor.")	___	___
5. Were promises ever made to him and not kept?	___	___
6. Did you constantly expect him to disobey?	___	___
7. Did you always explain directions so that he could understand what was expected of him?	___	___
8. Did you ever encourage him to show off for the enjoyment of adults?	___	___
9. Did you ever threaten? (Threats of "bogey-man" or of leaving him, or of punishments? "If you don't, Santa Claus won't come to see you.")	___	___
10. Did you refuse requests whether they were reasonable or not?	___	___
11. Did you ever get angry and thus set an example of temper?	___	___
12. Did you give him his way when he had a tantrum?	___	___
13. Did you change your own attitude frequently so he never knew what to expect?	___	___
14. Did you ever lie to him or to others when he heard you?	___	___
15. Did you ever evade his questions?	___	___
16. Did you ever overstimulate his imagination?	___	___

List of answers as they should read:

1. No	7. Yes	13. No
2. Yes	8. No	14. No
3. No	9. No	15. No
4. No	10. No	16. No
5. No	11. No	
6. No	12. No	

It would be easy to go on indefinitely listing the things one sees done so every day leading to the detriment of the child. If these questions cannot be rightly answered by the adult caring for the child, then he must take the blame for any undesirable behavior.

How the nursery school serves to emphasize child training need not be discussed in this paper. Interest has been growing constantly on the part of parents, educators, nurses, social workers, psychologists, and home economics groups. Each division hopes the nursery school will contribute to its work. The parent wants a better working knowledge of his job, the teacher wants a better adjusted child, the nurse wants experience in handling the well child for comparative purposes, the social worker thinks in broader terms of society and world betterment, the psychologist in scientific terms of research and the home economist hopes to continue experiments in feeding and in household management. All the aims are worthy in themselves. To some extent we have been able to combine the work of various departments and, by using our university nursery school as a practice center, some students from each of these groups have benefited.

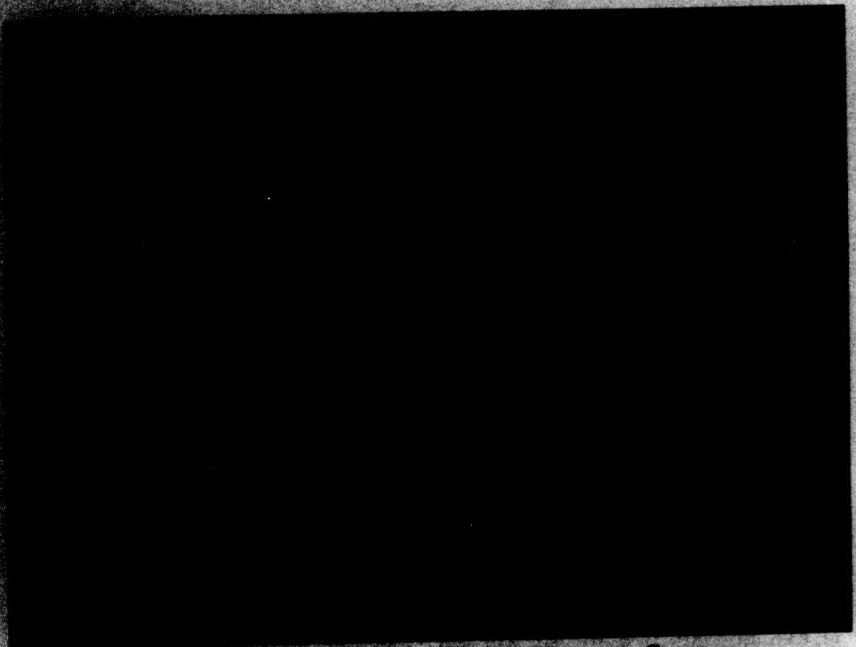
The School of Nursing of Western Reserve University made arrangements over four years ago for placing its students in one of the two available nursery schools in Cleveland for a two-week practice period. The students had this work during their pediatric training.

After watching the experiment for some time it was judged that the results that were achieved by the students upon returning to the hospital were a good indication that a longer period of time could be profitably spent in the nursery school. The time was then lengthened to a four-week period and remains so at the present time. This is long enough for the students to get into the work, and actually to acquire working knowledge about the children and their family backgrounds, their needs, and individual problems. At present the students are making use of four nursery schools.

The chief objective has been to give all nursing students a chance to know normal children in a normal environment. This knowledge adds to a general fund of information that makes a nurse more alert, more tolerant of the viewpoints of other adults, and more capable of understanding any child. Specific objectives that we work toward, include the following:

To demonstrate adequate methods of training.
To demonstrate a suitable child environment.
To demonstrate how we help parents to study their own children in relation to their home environments and growth needs.

When we have an affiliating student within our nursery school teaching group, she finds herself with advantages and disadvantages. She trains with senior students from four or more other fields. One has had perhaps twenty or more hours of psychology, another two years of kindergarten methods and another has majored in the field of child nutrition. Against such training the nursing student has her fine background dealing with the physical. Now that more and more five-year students come to us she may have an additional knowledge of psychology and the general side. Because she knows the physical side so



Pets Provide the Best Basis for Science Work with Children

well, we try to give the student nurse more chance to see and work with another angle of training, although the physical must predominate for all two-year-olds. She is given opportunities to supervise every type of play activity and to sit in, and direct when she can, work with constructive materials. The latter must come near the end of the month for, until she learns our methods, the student nurse invariably directs or does things for the child too much of the time. She makes his pictures, holds his hand to help him draw, et cetera. Later she learns the need and value of having the child go through the natural stages of first, manipulating all materials; second, a symbolic stage of making something and naming it, even when it does not faintly resemble this thing to the adult mind; and third, making a realistic product. The stereotyped tulips that you once drew as a child were probably the result of having some adult superimpose ideas upon you. We help the student nurses to see the value in experimentations of children and the relation of such experience to the development of a creative mind in the adult.

Each student must learn something of the theories of play and what play involves. One girl once came to me and said, "I just don't know what to do with Billy. He isn't playing at all." Now Billy was a sturdy two-year-old, with much surplus energy, who ran around on his tiptoes or hopped or danced about half of his time. The student did not know that one type of play involves activity for its own sake. She must learn what types of toys and materials

children like and how they are presented to children. She learns that snipping paper with small scissors is a usual beginning practice and is not a sign that the child is bad and is just littering the floor.

In the hospital there are routines that must be accomplished in a given time and the nurse dashes ahead in order to finish. Jack must have his breakfast, so he gets it. It may be forced, four out of seven mornings, and Jack may begin to accumulate food antipathies that will carry through life. Our students go back to the hospitals realizing how bad this is, and knowing how some of the children become what they are—feeding problems, sleeping problems, or general behavior problems, and have some ideas of the technics that are used in reconditioning them.

This ability must include knowing how to approach children. Four out of five students that we get will use the same formula—"What's your name? You're a nice little girl," or will turn to any adult near and say within the child's hearing, "Isn't she precious?" *Children are entitled to respect* from people around them. There is no reason why they should ever be discussed before themselves. We require eating, sleeping, and toilet periods in the nursery school. The rest of the time, a child may choose his own activities if they do not interfere with or prevent the play of others. When a negativistic child must follow some routine, he is apt to be upset. He must have a different approach used. These approaches call for a technic that involves manner and voice, as well as facial expression and the right words.

It is interesting to note that the student nurses who come to us have to work the hardest to get their voices down to a low pitch where they are not heard above the sound of children's play or conversation. Unless they call out in the wards, I should think that a low, pleasant voice should be one requirement in a hospital. A friendly, happy manner must also be an impersonal one in the nursery school. There should never be any emotionalism in the adult's behavior, manner, or voice. I have watched girls master an anger that ordinarily would have made them punish a child, and later have had them tell me how furious "George" made them. They are surprised at my statement that they may have refrained from striking, but a blow might have been easier for the child. Eyes that blaze, a voice that is charged with emotion, and controlled until it is tense, or an arrested manner that shows evident anger, are never missed by any child. He may resist them, but he is as aware of them at one, two, or three years of age as he is at twenty.

Before any students come to our nursery school, they have a conference with the director of nursing service, and some information is given them about this new work. But of more importance is the attitude which she helps give them. They come over the following week in a "learning" spirit. They are used to adjusting quickly and the first day or two goes fairly well, considering the strangeness. About the third day they find many things left to them that they were not even conscious of on Monday. Perhaps on that day the student nurse is responsible for the orange juice period. The other days, she saw it done and heard no outcries from the children, and it seemed very simple. But Wednesday, one child refuses to take any juice and smashes his cup on the walk outside. This might have happened on Monday or

Tuesday, but it didn't. The reason was not a question of luck, but one of skillful planning. One student came to school last week saying that she had decided that they had been told the truth before they came to the nursery school, and that you could get out of nursery school work just as much as you put into it.

In order to make the most of the short time spent in nursery school, a tentative course for four weeks is set up that shows the student what is expected. The course divides the training into three definite phases: *practice* or actual work with the children in every phase of their school life, directing their general activities of playing, eating, sleeping; *reading*, to supplement the practical work and give background to their practice; *conferences*, to clear up doubtful points and to stimulate through discussion further thinking on the development and training of normal children. A modified form of this course is appended to indicate the trend of the work.

Many questions might arise from our situation in Cleveland. Do students have enough psychological background for doing this work adequately without harming the children? Would it mean more to the student and to the children if it were offered only to seniors because of their maturity. What immediate preparation should they have before coming to the nursery school? Should this preparation include definite courses in child psychology, emphasizing the normal as well as abnormal phases, and child management? Should all students be given this opportunity, or should it be offered only to those who are especially interested in children or in pediatric nursing?

The hospital library is supplemented by one at the nursery school. The staff of the one is interested in the work of the other. We feel the complete tie-up has been a valuable one to both institutions. As one person who has encouraged the affiliation once said, "As for the students, the poorest ones get something from the experience, and the good ones get a lot." If we keep in mind that every person that comes into a child's life, influences his habits and thus may finally influence his development; that he accepts actions and attitudes of adults and they become a part of his learning—we must recognize the importance of working out, in every way possible, methods that will fit all adults to help make these actions and attitudes acceptable.

First Week

Practice Work:

Learning to know children by complete names, and where everything is kept.

Learning daily routine habits that are, or are to be, established, type of medical supervision and help with it, diets, procedures at table, at nap time, in bathroom.

Reading:

Types of Nursery Schools.

Aims and functions of the Nursery School.

Physical, mental, and social significance to the child.

Organization.

Administration.

Brugger, M. E.: "A Nursery School Program," *Childhood Education*, September, 1928.

Johnson, Harriet: *A Nursery School Experiment*, whole pamphlet.

Foster & Mattson: *Nursery School Procedure*, pages 1–30.

Thom, D. A.: *Everyday Problems of the Everyday Child.*

Chapter 2, "Minimum Essentials for Nursery School Education."

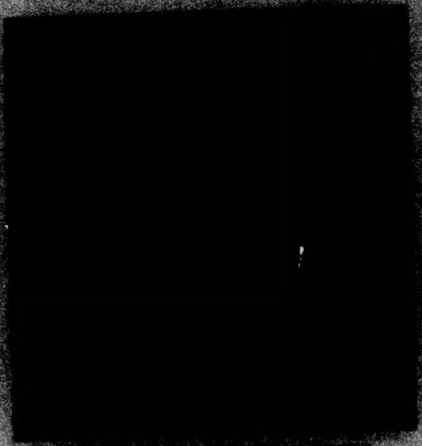
History of the Nursery School movement.

Development from health movement, Infant Schools, Free Kindergartens, English Nursery Schools, types, purposes.

Buildings and equipments.

McMillan: *The Nursery School*, pages 21–42.

Foster & Mattson: *Nursery School Procedure*, pages 34–64.



[illegible]

Year Book XXVIII, National Society for the Study of Education, pages 7–43.

Conference:

General duties at the school.

Specific duties for the week.

One paper on "My Conception of a Nursery School," or "My First Day at a Nursery School."

Discussion of methods and personal habits or manners that must be changed or modified by the student; problems of various children and general procedure.

General subject:

"How do young children behave, and what experiences produce this behavior?"

Second Week

Practice Work:

Experience with children in all situations throughout the day from 8.15 a.m. to 3.30 p.m.

Reading:

The Nursery School Day.

Technics in Nursery School in washing, toilet, dressing, eating, sleeping.

Foster & Mattson: *Nursery School Procedure,* pages [illegible].

Waring: *Behavior of Young Children,* Book I, Book II.

Conference:

Questions concerning duties, routines, procedures, and problem children.

General Subjects:

"What experiences produce the most acceptable social habits in a child and the best skills for controlling his body muscles and play materials?"

"Under what conditions can these acceptable social habits and skills best grow?"

"Where in the educative process are these most effectively developed?"

Third Week

Practice work:

To continue as scheduled for previous week.

Reading:

Mental growth of the child.

Emotional habits.

Constructive discipline.

Play materials and their uses.

Creative play and construction.

Books and reading, use of music and story telling.

Faegre & Anderson: *Child Care and Training,* Chapters V, VI, VII, XI, XII, XIII, XIV, XV.

Foster & Mattson: *Nursery School Procedure,* pages 93–105, 155–170.

Johnson, Harriet: *Children in the Nursery School,* pages 3–21.

Thom, D. A.: *Everyday Problems of the Everyday Child,* Chapters 8, 9, 10, 11, 12, 13, 20.

Conference:

"At what age shall various materials be presented to children?" "How?"

Individual studies of the Nursery School children.

Fourth Week

Practice work:

Experience with children in all situations throughout the day.

Reading:

Behavior problems.

Problem child versus problem parent.

Blanton & Blanton: *Child Guidance,* Chapters III, V, VIII, XII, XIII, XIV, XX.

Child Study Association of America: *Parental Questions,* pamphlet.

Thom, D. A.: *Everyday Problems of the Everyday Child,* Chapter 2.

Conference:

General subjects:

"What is parental education?"

Discussion of problems met in the nursery school.

Comparative study of problems found in nursery schools, in hospitals and in homes, with the methods used in each place to correct the difficulty.

Adjustment of nursery school procedures for work with the [illegible] and sick child.

The Prevention of Tuberculosis among Nurses[1]

J. A. MYERS, M.D.

[*"It is somewhat of a reflection upon contagious service technic for a student nurse to develop scarlet fever. It is just as much of a reflection for a student nurse or a recent graduate to develop tuberculosis." Dr. Myers here gives five rules which should be adopted by hospitals and schools of nursing in a whole hearted attempt to reduce the high incidence of tuberculosis among nurses.*—EDITOR.]

CERTAIN views and even some alleged facts concerning tuberculosis, held a few decades ago, have gone. With a quarter of a century of an intense educational campaign, and with forces at work which perhaps we do not appreciate, the death rate from tuberculosis has been greatly reduced. To some extent we have taught prevention of the spread of the disease, which has resulted in reducing markedly the opportunities for exposure to tubercle bacilli. Consequently, we have reached the time when, in some parts of this country, large numbers of children grow to adult life without reaction indicating infection with tubercle bacilli. We have learned that the childhood type of tuberculosis (the first infection type) has a strong tendency to heal but, in later life, we find that those who have had the childhood type contribute largely to the group who develop the adult and more destructive type of tuberculosis. There is good evidence that the majority of those who develop the adult type of tuberculosis have previously had, somewhere in their bodies, the first infection type. At one time it was assumed that only children are in danger from exposure, but we have learned that it is also dangerous for adults to be exposed to this disease.

The first requisite to the success of the nurse is good health. Her breakdown with such a communicable disease as tuberculosis reflects upon her professional training and upon the practice of preventive medicine. Yet a situation exists here which is a disgrace to her calling. Every year in this country a good many public health nurses have the adult type of tuberculous disease detected only when it is in its advanced stage.

One of the greatest problems in the field of tuberculosis, at the present time, is the control of the disease among one of the most valuable groups of workers in the entire campaign—that of the nurses. Nearly a decade ago, while serving as chief of the medical staff of a special institution for the tuberculous, I was frequently asked by student nurses and their relatives whether it was safe for the student nurse to take such a service. My answer was emphatically "Yes!" The reason for this answer was that I had seen many student nurses take this service and leave apparently in excellent health. Only very rarely did one break down from tuberculosis while on the service. In all probability the same opinion held by so many tuberculosis workers at that time was based upon evidence just as insufficient as mine. Our testimony was not sound, because we had made no attempt to study the health conditions of these nurses over a period of many years. We had failed to take into consideration the fact that the interval between

[1] Presented before the National Organization for Public Health Nursing, at the Biennial Convention, Milwaukee, Wisconsin, June 11, 1930.

exposure and the development of the disease in a clinical form is frequently great. It covers not only months, but in some instances years.

As years passed, I was astonished at the number of graduate nurses who upon examination were found to have clinical pulmonary tuberculosis, and who stated that they had taken this special tuberculosis service since they had been told it was so safe. Among them occurred a high incidence of disease and a considerable loss of life. This led to the question, "Were we right when we told these student nurses in the past that there was practically no danger from exposure to tuberculosis while they were engaged in sanatorium work?"

Careful observation reveals the fact that there are but few schools of nursing of any size that do not have cases of tuberculosis among their student nurses every year, as well as among their recent graduates. One nurse stated that she finished training with a class of thirty, and that four of her classmates were suffering from clinical tuberculosis by the time they had graduated or soon after. This is a high percentage of such a class, yet apparently it is not unusually high among nurses.

In 1926 and 1927, reports began to reach us from Oslo, Norway, where Heimbeck found that approximately 12 per cent of the student nurses in the Oslo General Hospital develop clinical tuberculosis. Further observation shows that the incidence of tuberculous disease among nurses is apparently too high when compared with that among girls and women of the same ages among the general population.

In 1928, Whitney called attention to the fact that the incidence of tuberculosis among nurses in training is one-third higher than among women of the same ages in the general population. She based her statements upon studies which recently had been made in Chicago and San Francisco. In Chicago, Britton and Bollman found that 2.2 per cent of the nurses had tuberculosis. Shipman and Davis found that 2.1 per cent of pupil nurses in the University of California Hospital developed tuberculosis. In 1928, Whitney called attention to the fact that 54 per cent of all nurses aided by the Relief Fund of the American Nurses' Association have tuberculosis; and that among nurses between the ages of twenty-one and thirty, three-fourths of their disabilities are due to tuberculosis.

Sachs found among 206 nurses with clinical tuberculosis that 42 or 43 per cent gave a family history of the disease. Seven were engaged in public health nursing; seven had nursed tuberculous patients; five gave a family history free of tuberculosis, but had nursed tuberculous patients; and thirty-six gave a family history of no tuberculosis, and had not to their knowledge nursed tuberculous patients. Among the 206 cases, 125 were graduates from general hospitals; forty-six were student nurses; one was a graduate and one an undergraduate from a tuberculosis training school. Of four practical nurses and twenty-nine others no definite classification could be made. In all, fifty-eight schools of nursing were represented.

The Italian Correspondent for the *Journal of the American Medical Association*, in the issue of June 26, 1926, states:

> Among the regular nursing personnel of the Ospedale Maggiore in Milan, during the period 1910–1920, the average annual

morbidity was 1.22 per cent among the male nurses and 1.66 per cent among the female nurses, excluding the Sisters of Charity. The increase in the number of days' absence from duty has been considerable and is progressive. A ruling adopted in 1919, to the effect that long absence from work because of tuberculosis would not result in dismissal, has been a major cause of the increase.

Braeuning found among eighteen nurses whose past health had been perfect but who, at the time of his study, were suffering from tuberculosis, fifteen, or 83 per cent, who had nursed tuberculous patients. Later, Braeuning reports the case of a nurse, previously non-tuberculous, in whom pulmonary tuberculosis was found one and a half years after entering upon tuberculosis service. One year later, the disease had become serious. From his entire study he was of the opinion that in 15 to 30 per cent of the cases of tuberculosis among nurses the infection could be ascribed to the fact that they had nursed tuberculous patients. He believes the chief reasons for the transmission of tuberculosis to nurses are: first, little or no instruction concerning the spread of tuberculosis; second, bad hygienic conditions in the various sanatoria; and third, the inadequate disinfection of food utensils and dishes.

Mücke reported his observations of thirty-seven years. Among 4,284 nurses and nuns, 150 had developed tuberculosis. Until 1918, only 1 per cent developed this disease, but after that year the percentage was 4.6. He noticed that the nuns developed tuberculosis most frequently between twenty and twenty-four years of age, and that the disease was usually discoverable in from three months to two years after they began their service. He believes that overwork and the lowering of resistance from other disease conditions were of chief significance.

Kirchner made a study of tuberculosis among nurses and physicians. Of 14,140 nurses, 1.44 per cent were tuberculous, while only .77 per cent of 2,861 physicians were suffering from this disease. Thus the incidence was almost twice as great among nurses. He found that of the nurses working in general hospitals, 1.36 per cent were tuberculous; of those working in special tuberculosis institutions 1.89 per cent were diseased; while 2.44 per cent of those employed in medical clinics were suffering from tuberculosis.

Gordon and Cashman, studying tuberculosis in workers after residence in a tuberculosis hospital, report active disease in two cases, detected three months after their tuberculosis service. In three cases the disease was detected two years after graduation. The authors point out the fact that the association of nurses with patients is closer and more continuous than that of other members of the staff, and in the care of critically ill and moribund patients the degree of service is proportionally increased. In the follow-up of 737 persons, including nurses, who had worked in a hospital for diseases of the chest, the incidence of tuberculosis developing after termination of the service was approximately less than 2 per cent.

Ross made a study of tuberculosis among nurses admitted to the Manitoba Sanatorium. In the conclusions of his paper he stated:

> Sixty nurses have been admitted to this sanatorium during the past five years. This is far beyond the proportion in which women of the Province in general, or any other class of women in the Province, have been admitted, and more than the proportion of girls of their average age also. These nurses, who have come for treatment of tuberculosis, have with few exceptions broken down during their training in general hospitals, or during the first year after that training, often while still on the staffs of general hospitals.

Fifty of the nurses in this series broke down during their training or within one year of graduation. This constitutes about 6 per cent, or one in seventeen, of the nurses in training within Manitoba during the same four-year period.

Meulengracht, in a study of tuberculosis among nurses in a Danish school of nursing, found from 5 to 6.2 per cent of the nurses with tuberculosis.

The report made by the Relief Fund Committee of the American Nurses' Association in June, 1939, showed that of 543 nurses who have received aid since 1911, 258, or approximately 47 per cent, were suffering from tuberculosis.

From these studies it is obvious that, under existing conditions, the nursing care of the tuberculous is a hazardous occupation. The student nurse and the medical student should know that their professions are hazardous when they enter them. Where duty calls they must go, if they have the true spirit of nursing or medicine, whether it be to the bedside of the patient suffering from black smallpox, typhoid fever, diphtheria, tuberculosis, or any other communicable disease.

From the studies cited above, even the lowest percentages of disease incidence reported are approximately one-third higher than those reported in the general population. The evidence is too significant to be ignored. Further study and observation carried out in the most scientific manner is imperative. The specialist in chest disease work who states that, in his personal experience, over a period of ten or twenty years, he has observed but one or two cases of tuberculosis among nurses that might have been contracted in their line of duty, either has had excellent contagious disease technic practiced in his institution, or he has not followed the nurses after they have left his service. The majority of physicians, asked if they know the actual health status of, or cause of death of, the former nurses of their institutions, are compelled to give a negative reply.

Frequently, nurses whose health begins to fail so that they feel a little below par, whether they do or do not suspect tuberculosis, leave their work without examination in the institution. Some of them fear tuberculosis and postpone the examination just as long as possible. They go away under the guise of taking vacations, new positions, et cetera, and at some later time the disease is detected and frequently they put forth every possible effort to prevent their former employers and associates from knowing of their illness and its real nature. The following case represents this group. A nurse, graduated two years previously, had spent one year as a graduate nurse in an excellent sanatorium. At the end of a year she seemed somewhat fatigued and left the institution, telling the superintendent that she was taking another position. She came to her home and reported to a private physician who found that she had frank pulmonary tuberculosis. Her physician stated that he would correspond with the sanatorium superintendent, whereupon she informed him that above everything else she wanted the superintendent of the sanatorium or any other employee of that institution never to know that she had developed tuberculosis. Whether she contracted the disease there or during training no one knows; but the fact remains that any ordinary survey of the nurses previously employed in that

institution, to determine how many had developed tuberculosis, would have failed to include her case in its records.

Most specialists in chest work will state that the majority of people who actually break down while on duty have had the disease before entering upon this service. Since it has been definitely established that reinfection is dangerous, how can anyone state that the break-down in an institution of a person who has previously had tuberculosis is not due to reinfection? No one denies the fact that but a small percentage of healthy physicians and nurses, engaged in the hospital and sanatorium care and treatment of the tuberculous, break down with the disease while on duty; but I fear that if we will follow them over a period of years after they have left institutional work we will find the percentage of those who have become tuberculous definitely greater than has been determined.

The length of time between the appearance of disease on the x-ray film and the development of symptoms may be great, as shown by Opie, McPhedran and others. I have observed patients as long as seven years between the time of the appearance of the evidence of tuberculous disease on the x-ray film and its sufficient activity to produce symptoms. Here we reveal a tremendous mistake of the past. We have failed to recognize this long period of years, during which the disease is developing, as of significance; and all too often we have failed to associate exposure with clinical disease that has developed five, ten, or more years later.

This situation is indeed serious. It is rumored that some of our great life insurance companies are beginning to look upon nurses as poor risks from the standpoint of disability, and that there is a possibility that some of these companies will either refuse to write disability insurance for nurses or will consider them as substandard risks and increase their charges for disability over others of the same age in the general population. This is of greater significance than it may seem on first thought. The nurse's income is rarely sufficient to permit the accumulation of much of a savings account to tide over periods of illness, particularly if these periods are prolonged. In the past she has been able to depend upon insurance, but if in the future this is taken away from her, or the premiums become exorbitant, she may even become a charity patient when illness finally develops. We must take immediate steps to prevent the dawn of such a day. The services of the nurse are too valuable from every point of view for us to allow a condition to develop which promises her nothing after her contribution of five, ten, or twenty years of service but the spending of the remainder of her life in a charity hospital for the chronically diseased. The nursing profession is too much worth while for us to allow the time to come when women of excellent mind and sympathetic attitude toward the sick will refuse to enter the profession of nursing because it offers them no future.

I am firmly convinced that nursing is a far more hazardous occupation today than it should be, and it is one of the objects of this paper to point out places at which we have failed and are still failing in the hope of reducing materially this health hazard.

Several attempts have been made to explain the high incidence of tuberculous disease among student and

graduate nurses. Some have insisted that it is overwork and, particularly, the doing of menial work. If the hours are not too long, work in itself is not a significant factor, unless tuberculous disease already exists in the body or there is constant exposure to tubercle bacilli.

Others have placed all the blame upon overcrowded living quarters where, they believe, poor ventilation has promoted the greater liability to tuberculosis. Crowded living quarters have little or nothing to do with the development of tuberculosis provided the student nurse has sufficient rest and sleep and infection is prevented. However, such quarters become extremely dangerous if one or more of the resident student nurses are already suffering from tuberculosis so as to permit the easy spread of the bacilli to others. The importance of ventilation has been overemphasized in recent years.

Others believe that the entrance examination to schools of nursing is not sufficient and that periodic health examinations should be required of student nurses. Entrance examinations are of great significance. All too often girls are admitted to schools, who already have developed the adult type of tuberculosis. They are not definitely ill from it, but as time goes on the disease progresses and they become seriously ill before or soon after they finish training. Even though entrance examinations are given, they are often of no value so far as the detection of tuberculosis is concerned. The ordinary physical examination does not suffice, but to it should be added in every case the intracutaneous tuberculin test and an x-ray study. This procedure should apply to all employes of the institution. When such examination has been completed, the nursing school has done the best that is known at this time. The procedure outlined not only detects the majority of cases of clinical tuberculosis upon entrance, and gives the patient the chance to begin treatment long before the disease would otherwise have been detected; but it also protects the school against the blame of causing the breakdown, and safeguards other student nurses from exposure. In the future, any hospital or nursing school which permits on duty open cases of tuberculosis among students, or among maids, waitresses, or other employes will not be deserving of the name.

Periodic examinations, during school residence, are of considerable value; but they should be more inclusive than the ordinary periodic health study. Student nurses who have been found normal on entrance examination should have re-examinations at least every six months. Those who were negative to the tuberculin test on entrance should have this test repeated every six months so long as it remains negative. X-ray films of the chest (usually a single film will suffice) should be made at least every twelve months and if there is any suggestion of the development of tuberculous disease they should be made oftener.

A considerable number of graduate nurses believe that there would be much less tuberculous disease detected among nurses if more attention were paid to illness during school residence. They contend that frequently when the student nurse reports ill, she is told that her symptoms are of no significance and is sent back to work without careful examination. Such an attitude on the part of a supervisor of a nursing school towards her students is unexplainable.

Of all health workers the nurse should play an important rôle educating people to take periodic health

examinations and most certainly she should insist upon examination of those who have symptoms, even though they be slight. How we shall ever develop the right spirit among the nursing profession towards health examinations becomes a difficult question, so long as supervisors discourage it among student nurses themselves. I have seen several cases of tuberculosis among these girls ignored by the supervisors, which leads me to believe that the accusation applies far more generally than it should. The contention of some supervisors of nurses is that the students are likely to take advantage of sick leave. This is illogical since students are required to make up their sick leave after graduation. Women who choose nursing as a profession are generally of a splendid type, and I believe that they merit greater confidence than is sometimes placed in them.

The contention that is gaining ground as a result of recent research is that in the past student nurses have not been sufficiently protected against exposure to tuberculosis. *The greatest of all causes for the high incidence of tuberculosis among nurses is the exposure they suffer to the disease while in hospital or school residence.* The belief was held, at one time, that adults could not be harmed by exposure since an infection in childhood was thought to render further exposure of no danger. We now know that not all young adults have been infected. In fact, in certain parts of this country, less than 40 per cent of the girls of college age have been infected with tubercle bacilli. Therefore, exposure for them is just as dangerous as exposure for an infant. We have also learned that re-infection is dangerous. That is, those who react positively to the tuberculin test are in danger of re-infection when exposed to tubercle bacilli.

A few years ago, a patient came into a general hospital from a distant city. He died soon after admission. Soon one of the student nurses became acutely ill and died. In neither of these cases was there any external manifestation of black smallpox recognized; yet this was the disease from which both had died. Other student nurses fell ill of the same disease. Did anyone say that they contracted this disease because of overwork, bad ventilation, et cetera? Everyone knew that there was just one cause for the disease and that was exposure to those suffering with and dying from black smallpox without proper protection of the students by vaccination. Yet when a student nurse falls ill with tuberculosis, attempts are made to explain it on every basis other than the true one, which is exposure to patients suffering from the disease.

For a long time we argued that a normal person is safer working in an institution for the tuberculous than in a crowded apartment store or any public conveyance, because an alleged technic is practiced there which prevents the spread of tubercle bacilli. At the same time, we had posted notices and inserted paragraphs in institutional literature to the effect that no children would be allowed in patients' rooms and wards—a frank admission that we did not have confidence in our technic.

For years many of us have labored to convince schools of nursing that they should affiliate with institutions for the tuberculous. Then we accepted the belief that tuberculous infection is universal. Perhaps it was, and if so there was practically nothing

to be done. However, a quarter of a century of educational work has unquestionably resulted in reduced opportunities for exposure to tuberculosis. During that time a specific test for tuberculous infection has also been developed and proved practical in its application. We have only recently arrived at the time, therefore, when we could determine with any high degree of accuracy which student nurses carry tuberculous infection in their bodies. Therefore, it is only within a very recent period that we have been able to determine with reasonable accuracy where and when the infected contract tuberculous infection. Very recently Heimbeck's work set the medical and nursing world to thinking when he applied tuberculin tests to 420 student nurses on admission to training school and found that only 48 per cent reacted positively. He observed the nurses he tested with tuberculin from year to year. When they were placed on a tuberculosis service practically all of the 52 per cent who were negative on entrance examination soon became positive to the tuberculin test. Thus, they had become infected with tubercle bacilli during their hospital residence. This is a significant fact. It shows that the technic which we formerly thought to be so safe is of little or no avail so far as preventing the spread of tuberculous infection to student nurses is concerned.

If sanatorium superintendents who still believe that 100 per cent of young adults have been infected with tubercle bacilli will apply the intracutaneous tuberculin test to all of the girls and boys of college and university age in their districts, they will be most happily surprised. They will find that far from 100 per cent of these young adults have been infected with tubercle bacilli. In some districts they will learn that less than 50 per cent show a positive tuberculin reaction. In all probability, this incidence of infection is far less than it was when these superintendents began work in their districts and they and their coworkers deserve tremendous credit in reducing the incidence of infection. Indeed, their contribution in this direction is far better than anything they can claim in the direction of the cure of tuberculosis. It is true that infection, as shown by the tuberculin test, in the absence of clinical disease, such as we are able to detect by our present crude methods, has been claimed by many to be of a protective nature; but we must not forget that at the postmortem table it has been shown that when the adult and chronic type of tuberculosis exists in the body there is nearly always evidence to lead us to believe that it is this group of infected cases which supplies us with practically all of the adult and clinical cases of tuberculosis. Obviously the smaller the group of people reacting to the tuberculin test the smaller will be the number developing the type of tuberculosis that makes us ill.

Some workers have become enthusiastic over Calmette's attempt to immunize by the introduction of a virulent, but living, tubercle bacilli into the bodies of children, and have stated that observations to date as to the results of such vaccination are remarkably favorable. We must not overlook the conclusions arrived at in 19[illegible] by the commission of bacteriologists, veterinarians, and clinicians appointed by the Health Committee of the League of Nations. Nor should we ignore the warning by one of

America's best bacteriologists; nor should we forget the fact that the research committee of the National Tuberculosis Association has failed to recommend the universal use of Calmette's vaccine. On the other hand, we must not condemn Calmette's vaccine, on the basis of the recent disaster in Germany, unless criticism is justified when all the facts are known.

We must agree that continuous exposure to massive doses of infection is conducive to the development of the disease, but we cannot agree that this is only true of children of tender age. There is no scientific evidence to prove that the child is more susceptible to tuberculosis than the adult. This has also been found true among animals, particularly guinea pigs, where baby animals tolerate infection just as well as the adults of their species.

In a study now in progress we have found less than 30 per cent of the student nurses reacting positively to tuberculin on admission to nursing schools. We are examining this group every six months, when a tuberculin test is re-applied to all who previously reacted negatively. In addition to this we have applied tuberculin tests to the various classes of nurses in several schools and have found tuberculous infection far more prevalent among the senior student nurses than among the probationers and freshmen. Some have argued that girls of the same age in the same city, in colleges of arts and science or education, would show the same increase in the incidence of infection over the same period of years. One of our studies now in progress leads us to believe that this is not true. The increased incidence of infection is greater among the girls in schools of nursing. After all, we are dealing with a communicable disease and it is most logical to expect that these girls who are caring for the tuberculous sick would have a higher incidence of infection. When a group of student nurses enters a tuberculosis service with only 30 to 50 per cent infected and leaves the service with 80 to 100 per cent infected, the location of their source of infection should be obvious. One group of physicians states that in its opinion circumstances will never permit the enforcing of a contagious technic which will prevent the spread of some tubercle bacilli to the bodies of nurses caring for the tuberculous patients. Were we to accept this opinion as truth, we should still be able to prevent excessive infection.

Apparently there is not so much difference as one might expect in the incidence of tuberculous infection among student nurses, by the time the senior year is reached, in those hospitals with tuberculosis services, or affiliations with sanatoriums, as in those without such services and affiliations. What is the explanation? Why should the institution that prides itself upon never admitting a tuberculous patient infect so many of its pupil nurses?

Many hospitals in this country have very rigid rulings to the effect that no tuberculous patient can be admitted either for diagnosis or treatment. Yet the truth has it that there are few general hospitals of any size that do not have their tuberculous patients daily. They are admitted for other conditions, for which they are treated, without ever having their tuberculous disease suspected. A number of years ago one of my patients with pulmonary tuberculosis, with tubercle bacilli in the sputum, developed acute appendicitis. I was away at the time, and a

surgeon was called who immediately sent her to a general hospital. He evidently did not know nor did the hospital authorities know that she had pulmonary tuberculosis, and that she was spreading tubercle bacilli. The student nurses as well as the graduates gave her splendid care. They were very intimately associated with her, and of course the cough she had was said to be due to ether irritation. Recently, in another general hospital, I saw a woman who had been carefully studied for hyperthyroidism. Finally thyroidectomy was performed, and a few days before she was to return to her home, because of certain symptoms, someone suggested an examination of her chest. She was suffering from pulmonary tuberculosis with a large cavity in one lung and tubercle bacilli in the sputum. Can anyone believe that the nurses, both students and graduates, who gave her preoperative and postoperative care were not definitely exposed to tubercle bacilli?

The public health nurses of the future are being and will be recruited from the girls taking their training in hospitals, some with and some without services for the tuberculous. If present conditions remain unchanged, public health nurses will continue to draw those who have been infected during their education, and some who break down soon after entering the field of public health nursing. But, what can be done about it? The suggestion has been made that the facts be withheld from the press on the ground that hospitals and sanatoriums will find it difficult to secure nurses for their services if it becomes generally known that infection and disease hazard are so great. If we were doing the best we know and these conditions could not be changed, there would be no use in bringing the facts to light. We might accept it then as "The Will of God."[2] I am firmly convinced that in most places we are not doing more than a fraction of what we know should be done to protect student and graduate nurses against tuberculosis. Therefore, it is a duty to bring to light some of these existing facts.

No groups of workers occupy so strong a vantage point as the public health nursing organizations. They are in a position, not only to make recommendations, but also to make demands upon our offending hospitals and sanatoriums to clean up the situation and stop jeopardizing the health of student nurses. After all it becomes a public health problem, and who is more interested than the public health nurse? It also becomes a problem within the nursing profession; a problem that is costing large sums of money, not in itself worthy of mention when compared with the great loss of service and even the loss of life of its members.

Every girl who enters the nursing profession, exactly as every boy or girl who enters the medical profession, knows that she is entering a profession of hazard. She knows that she will be exposed to various communicable diseases; yet her self-sacrificing spirit impels her to face the danger in the service of others. It is our duty to reduce that exposure to a minimum. It is somewhat of a reflection upon contagious service technic for a student nurse to develop scarlet fever. *It is just as much of a reflection for a student nurse or a recent graduate to develop tuberculosis.*

What is the solution of this very important problem?

[2] See *Hygeia*, June, 1930, page 5[illegible].

First: Apply the intracutaneous tuberculin test and make the x-ray examination of every applicant for admission to a school of nursing.

Second: Apply the tuberculin test every six months to each nurse who previously reacted negatively to the test. Make an x-ray examination at least every twelve months, and better every six months, of all student nurses who are positive to the tuberculin test.

Third: Examine for tuberculosis every patient applying for admission to a hospital. In addition to an ordinary physical examination of the chest, a single x-ray film should be made in every case. This involves very little expense for each admission. In many cases the patient would willingly bear it. The x-ray frequently reveals tuberculosis which is sufficiently extensive to be of danger to others. The patient may be admitted to the hospital for a cataract operation, yet he should be x-rayed just as surely as the patient who is admitted because of a cough, from the standpoint of the protection of the student nurses and internes against exposure to tubercle bacilli. The unsuspected and unknown case in a general hospital is a dangerous case from the standpoint of exposure. Such a procedure is not an idle dream. It is already in practice in certain institutions and it more than justifies the additional effort and expense on the part of the hospital.

Fourth: Every general hospital should have its tuberculosis service where all these patients may be treated and thus render better service to the community. On such tuberculosis services, the student nurses should be taught the technic of the prevention of the spread of contagious disease. If the service were undertaken only to teach the nurse how to protect herself from tuberculosis it would more than justify its existence. It is capable, however, of accomplishing far more than this. It will teach the nurse how to teach others the prevention of tuberculosis. Many a graduate nurse who breaks down with tuberculosis becomes very bitter toward her nursing school for its failure to teach her the principles and the practice of the prevention of tuberculosis. The establishment and the proper operation of tuberculosis services in general hospitals would remove the reasons for such complaints in the future.

Fifth: We must employ in the care of the tuberculous patient, whether he be in a general hospital or in an institution for the tuberculous, the same rigid technic as is employed in the prevention of such diseases as diphtheria and scarlet fever. Someone has suggested that the Workmen's Compensation Act might be brought into play in the case of student nurses who, after developing tuberculosis, can prove exposure in the hospital which provides few or no protective measures.

One excellent physician said: "Let the information be broadcast that the nursing of the tuberculous sick in well regulated hospitals and sanatoriums is not a hazardous occupation in any sense of the word, but that the superior hygiene and sanitation practiced in these institutions are in themselves for all employees a safeguard against the disease." Here he emphasizes what should be true and what easily may be true. Perhaps it is true in his institution. He may have carried out such a strict contagious disease technic that he has prevented the exposure of nurses and other employees, but there are many institutions, and I fear the majority of them, have not as yet established any such technic.

My whole thought in this study, still in progress, and in this as in subsequent presentations, is to stimulate sufficient interest to bring about the solution of one of the greatest problems in tuberculosis at the present time.

It is terribly disturbing, disappointing, and discouraging to all of us engaged in this work to find out that a part of what we believed five years ago is not true. Yet we must not forget that ignorance, superstition, and personal opinion have ever given way and must continue to give way to science which, as Minot said, is "truth that has acquired impersonal validity." We need to apply more crucial tests to truth, which so may gain the permanent quality of all goodness!

When this has been done, public health nursing will continue to draw its recruits from the schools of nursing, but nothing like 100 per cent of them will have been infected and few or none of them will be ready to break down with clinical tuberculosis.

However, all of them will have had the opportunity to learn and to become familiar with the prevention of tuberculosis, to the end that they may protect their own bodies and may render a most worth while protection to the communities they serve.

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The Lystra Gretter Educational Fund of the Farrand Training School Alumnae Association, Harper Hospital

IN [illegible], the Farrand Training School Alumnae Association established the Lystra Gretter Scholarship Fund. At the request of Miss L. E. Gretter the name of the Fund has been changed to "The Lystra Gretter Educational Fund," as she felt that the scope of its usefulness might be enlarged, and loans be allowed as well as scholarships. At the annual meeting of the Alumnae Association held in January, [illegible], the by-laws were amended to this effect; [illegible] in the number of the Committee which administers the Fund for the Association, and the by-laws adopted read:

"The Committee on the Lystra Gretter Educational Fund shall consist of five members, one of whom shall represent the faculty of the School of Nursing, the members to be appointed by the Board of Directors."

Since the Fund [illegible]

The Committee consists of [illegible], Chairman; [illegible] of Nursing; [illegible]; Emily A. [illegible]; with Miss L. E. Gretter as Counselor.

Reid House of Trudeau

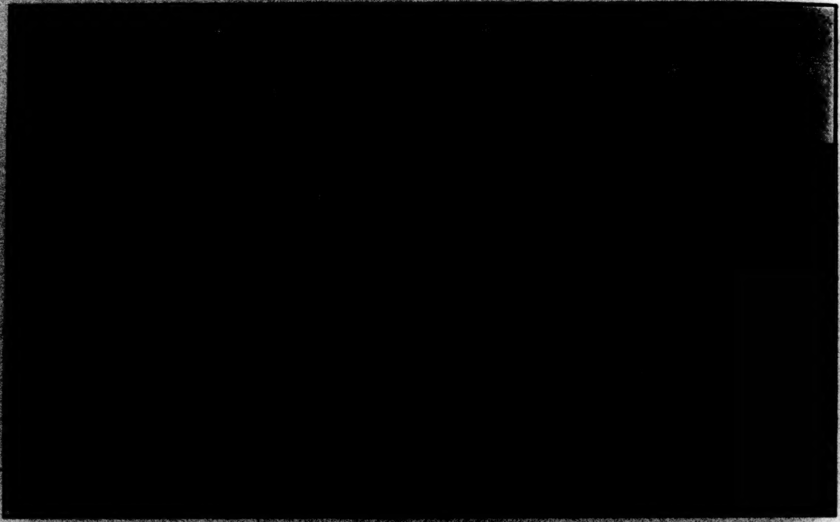
OPHELIA SAWTELL, R.N.

[illegible] Reid House, the Nurses' Home at Trudeau
Mills Cottage, the older house at right, is still used as a home for the preliminary students

Reid House, the new Nurses' Home of the D. Ogden Mills Training School of Trudeau Sanatorium, was opened for occupancy in August of this year. It is the gift of Mrs. Whitelaw Reid in memory of her father, D. Ogden Mills. A corridor connects the new house to Mills Cottage, the first home of the school built by Mrs. Reid in 1912. The buildings are situated on a wooded hillside overlooking the beautiful Saranac Valley, with the McKenzie range of the Adirondacks just beyond, and are somewhat removed from the rest of the Sanatorium.

The first floor is given to the reception hall, a spacious demonstration

One End of the Living Room



View from Southeast Balcony of [illegible] House
Mt. Baker is the mountain in the foreground

room and utilities, such as a small laundry for the use of the nurses, maids' quarters, and storerooms. A generous-sized living room occupies the south end of the main floor. With walls of paneled pine, an open fireplace, and reproductions of comfortable Early American furniture upholstered in bright chintz, an atmosphere of hominess pervades the room and one finds it easy to relax here after the strain of a busy day. Adjoining the room is a small sitting room for the use of the supervisors, and near by is a completely equipped kitchen. On this floor, also, is the library. A guest room with its private bath opens into the main hall. On the same floor, but closed off to form a separate unit, are rooms for six student nurses and a suite for the instructor.

The third and fourth floors have seventeen single rooms for students and six for head nurses. The latter are in groups of two, with connecting bath and sleeping porches. Hurricane decks on the top floor provide sheltered space for a limited number to sleep out, and the open balconies beyond the decks command a view of all the principal peaks of the Adirondacks on clear days. An electric elevator leaves one no excuse for not satisfying her love of the beautiful.

The furnishings throughout the house have been chosen not only for their durability and usefulness, but with the idea of pleasing the eye as well. Bedroom floors are almost completely covered by rugs. Each student sleeps on a very modern "beauty-rest" mattress in an Early American setting. The bed itself is a copy of the spool beds of our ancestors, covered with a day spread of similar chintz. Matching chintz is found at the windows and under the plate glass on the dressing table. A secretary provides drawer space and makes writing and studying a pleasure. A comfortable upholstered chair, a bedside table with two drawers and drop leaves, a

floor lamp and a table lamp all bespeak real ease.

The exterior of Mills Cottage is being remodeled to conform with the lines of the new and larger house and it is being renovated and redecorated inside. The Superintendent of Nurses continues her residence at the cottage where there are eight single rooms with sleeping porches, for student nurses. A large living room with its fireplace and a kitchenette make this building a complete unit.

The school enjoying the comforts of this modern residence was organized in 1912 by the late Dr. Edward L. Trudeau, the founder of the Sanatorium that bears his name. It was started with a triple purpose: to provide good nursing care for the patients in the Sanatorium; to send forth women into the nursing field who could, with intelligence and sympathy, care for patients suffering from the disease which, at that time, was the cause of the highest mortality rate in the country; and as a rehabilitation scheme for ex-patients. In 1914 three graduates received diplomas from Dr. Trudeau and since that year 104 more have joined their ranks. The annual survey of the alumnae this year shows sixty-three of these to be actively engaged in nursing, forty-five of whom are in the tuberculosis or public health field.

The school is registered in New York State. It meets the requirements for general training by affiliations in general medical, surgical, pediatric, and obstetrical nursing. In addition to the two years at Trudeau, ten months are spent at the Yale School of Nursing and three at the Manhattan Maternity Hospital.

A Student's Room

Sunrise

I WAS awake to see the first gray fingers of light reach across the Pass of the North. I had waited all night for eight o'clock in the morning. The light, indefinite noises of the far away city streets, the soft tread of the night nurses up and down the corridor had drifted to me in a comforting sort of way. All night I had clung to the little sounds and murmurs, identifying them with people, with life. Perhaps after tomorrow, after eight o'clock, I should never be conscious of any sound again.

I had come to the border city alone for a chest operation which I had been frankly told would either save my life, restore me to health, or, with its tremendous shock and resulting loss of blood and strength, might snatch the last of my vitality.

No member of my family had been able to come with me. I had simply been placed on a berth aboard a train headed toward the sunset hundreds of miles away. I went with the fond belief that the purpose of my journey was to lead me to sunrise.

I had been pursued by illness since childhood. My girlhood had been passed on a sleeping porch, propped up against pillows, watching life pass me by. Now, in my early twenties, I was beginning to hope after so long a time of hopelessness.

Mine was a unilateral case of tuberculosis that had never progressed to any other part of my body, nor to my right lung. The left lung was a mass of corrupt tissue dripping poison in a never ending stream. Day by day I had grown less and less able to resist the relentless invader. I had been dying for six years. One grows so weary of living in the shadow of death. Yet, after all, one never knows just what may lie around the corner, so one keeps on and on.

One day a tall, smiling, pioneering soul came along and said, among other things, that there was a chance for me to get well. There was a new form of chest surgery for cases like mine. The substance of his discourse was surgical pneumothorax. Sometimes he said thoracoplasty. But all the technical names had the blessed sound of "Open Sesame," or "This condemned person is granted a reprieve." I snatched at the offered straw with all the desperate eagerness of a drowning person.

I was received at the hospital casually, given a cheerful, businesslike welcome, put to bed and made comfortable. I was just a bit surprised to find that no one realized that a miracle was to be wrought for me. I was just another case, another operation. I should have liked to talk about it. I wanted to ask a great many questions.

In Montreal, a Canadian surgeon was achieving fame because of his skill in this particular phase of chest surgery. In various parts of the United States a few scattered cases had attracted attention. (Anything that restores a hopelessly tuberculous person to health must be considered in the light of a miracle.) But in El Paso only a few had gone before me. A few intrepid men were experimenting with the work. Not all the cases had been successful. There was so much to learn. Some changes from the usual procedure were going to be made in my case; perhaps the changes would mean that others who were to come after me would suffer less.

I had spoken only twice with the surgeon who was to operate. He was a soft-voiced person with [illegible] [illegible]. After x-ray plates, blood counts, and other uninteresting things had been attended to in the sanatorium I went to

the surgical hospital one evening at six o'clock. At eight the next morning I was to go to the operating room.

At seven in the evening two student nurses who were detailed to duty in the operating room came and prepared me for the next morning. They shaved the down from the flesh on my back. They painted me thoroughly with mercurochrome and bandaged the sterilized area thickly, put back my night gown and left me to the night nurse. That person arranged my pillows at a comfortable angle, smoothed my sheets and left me with the admonition to sleep well. I did not sleep at all.

At seven o'clock in the morning a student nurse came in to give me an enema. At seven-fifteen another nurse came in with a hypodermic syringe. She injected something in my arm that immediately made me feel drowsy, but not much less nervous. I learned later that I had had a hyoscin-morphin-cactin preparation to induce a numbness, a semiconsciousness, in lieu of general anesthesia.

A student nurse came in with still another nurse in a stiff white uniform. "This is your special nurse, Miss W——," the student nurse said. I surveyed the new nurse stupidly. In the swirling pool that was my mind thoughts were rushing about like frightened fish.

I thought: "Here I am hundreds of miles from anyone who loves me, giving myself into the hands of this strange woman and a man who will hurt me cruelly—and give me life. They never saw me before. I am nothing to them, how can they care?" I was afraid of all of them, yet I wanted to cling to them. I wanted this strange, stiff woman to hold my hand, to smooth the hair from my face. How I wished she would stop and talk to me even about trivial little things, about the crisp, cool September morning, about the many far away little noises, about anything that might obscure this approaching horror. She told me later that I was so calm and smiling that she dared not risk disturbing me by talking to me. "Calm and smiling!" If she could only have read my poor, chaotic mind.

She went quickly about the room with a precise air of knowing exactly what she was about, getting me ready for the "ride" upstairs. She gave me another hypodermic injection of "H-M-C-" which sent me further into the swathing helplessness that was enveloping me.

Suddenly a rubber-tired cart was rolled to the side of my bed. I was lifted upon it. No one spoke. They worked, I thought, with the demeanor of undertakers. I wished they had laughed and talked as though nothing were going to happen.

I wanted to scream, to clench my fists and beat the air. Quite suddenly I was frenzied. I wanted to run away from this overwhelming place back to the safety and peace of my little white, many-windowed room; back to the slow-approaching but decorous death. I did not want this lowering terror of blood and torn flesh and broken bones, after all—no, not even to be well again. It was too great a price to pay. In those few moments I was frightened to the point of insanity. But I lay still, silent, unable even to turn my head.

The stiff, white nurse walked beside me. Two student nurses wheeled the cart. Now they were talking in subdued voices among themselves. Soon we reached a landing and I was being wheeled down another corridor and finally into a glaring place where ghosts stood about and looked impersonally, disinterestedly, at me, I thought. Then all the white-swathed,

masked figures started moving about and the student nurses went away. I was lifted from the cart to a table.

A soft voice that I recognized as that of the surgeon directed the arranging of me on the table. I lay helpless, inert, stricken dumb, but with my confused mind beseeching me to scream the thoughts that crowded into it. Then in the lull of a quiet moment I went to sleep.

I was awakened by firm but gentle hands stretching my neck over a hard object that might, I imagined, be a rubber-covered block of wood. My head was pulled far, far back and my neck bared to the shoulder. Thoughts of the guillotine flashed through my mind. I felt the local anesthetic being put into the flesh of my neck. Then, beneath my ear, I heard the sharp, swift ripping of flesh. I lay listlessly through this, not being particularly affected by it. But suddenly an intense pain shot from my neck to my waist. Such a pain smote me once when I stumbled into a yellow-jacket nest and was stung by dozens of the enraged inhabitants of the nest. The phrenic nerve had been removed from the left side. I learned this from the conversation that was going on about me.

Then, more silence. I went to sleep again. I awoke to find myself almost on my stomach with my left arm being pulled and stretched. The surgeon was giving directions for the manipulation of my shoulder blade so that he might make the incision baring the first ribs. I was drowsy during this stage of the operation and not at all alarmed when the breaking of the ribs began.

Dr. M——, in explaining each step of the operation to his nurses, likewise gave his patient a great deal of information. I gathered that the ribs were broken after grooves had been chiseled deep enough so that clamps might be inserted and the bones broken. I counted each rib as the cracking noise of the second break told me that the next rib down would be broken. I knew when the fourth and fifth ribs were broken. Then I went to sleep again. I knew that the operation was going to be done in two stages, that three or four weeks later the ribs from the seventh to the twelfth would be out. The breaking of the sixth rib awoke me again.

Then the collapsing of the lung began. The pressure of two strong hands upon my broken side oppressed me greatly. I tried to shrink away. Then, I was choking. Pus flowed in a thick stream into my throat and I started a strangled coughing. A hand reached under the sheet that covered my head; a tissue wiped away the pus that gushed from my mouth. The lung was drained, collapsed, and I was being bound tightly with heavy bandages. I went to sleep.

Afterward I was to awaken to a nightmare of anguish. I was to be a bleeding, helpless, broken thing for many days. I was to hear pleasant things said about my bravery, stamina, and courage and to know in my own heart that I was a coward who simply could not scream her cowardice.

When I awoke the stiff, white nurse was beside me, not quite so stiff or so white for I had given her plenty to do. I suffered all the nausea of the patient who has had ether. Lying upon a fourteen inch gash and upon six broken ribs, to say nothing of the incision at the side of my neck, is not the most comfortable thing in the world. The stiff, white nurse spoke to me kindly, in crisp, encouraging tones. If she had babied me I should have wept with the horror-stricken grief of a child. As it was she made me a good soldier by her own calm, well

poised manner. I was to learn about nurses from her, also from her successors who were to come afterward during that three-month stay in the hospital.

Gradually pain lessened, strength returned. The hospital folk became my friends, not just white-clad, cheery, impersonal people called in from their own affairs, from dinners, bridge games, and appointments with the dentists, to help hurt other people. They became individuals who counted my marvelous improvement as something of a credit to themselves. Each of them seemed to feel a distinct sort of pleasure in the success of my operation. It must be a lovely sort of feeling to know that one has helped to restore life to another. It must be close to the feeling that the Nazarene had so many times.

Now I am well again. It was given to me to put bright, lovely, silken clothes upon my scarred body and run out to join the ever-moving procession. Once more I am as others. I can live, love, grieve, fight, exult in triumph, hurt and be hurt. An exalted feeling, an uplifted feeling of wings, forecasting this sunrise, bore me up during that long trying period of pain and convalescence. I was young. I had been denied life. Now life was given me again. A few months before I ever thought of chest surgery in connection with myself, I had only the shadows, the lengthening shadows of the last, long twilight ever before me. In a little while I was going to be dead without ever having lived. But men were exploring the dark places of the world with only the lamps of their ardent souls for guidance, men were spending long hours of study and toil in all the wide places of earth for the betterment of humanity. It was always so and it will always be so. And some man, learning much, passed his learning to another who added more to it, and so on and on. And I was to profit by a man's skill and daring, a man's marvelously steady nerves and cool, alert brain. For a man's ability to do the work that he learned well, for his ability to add his own wisdom to that gained from all the others, I have my life. I have—sunrise.

Yet without his allies, the nurses, this man would have been practically helpless. Without skillful, scientific nursing I could not have borne the horrible weeks after the man's skill had done its best for me. Without the friendliness and understanding and loving care of the "Noble Sisterhood" I could never have had my sunrise.

The Public Health Nurse for November

Official Magazine of the National Organization for Public Health Nursing

(May be had in combination with the *Journal*)

Some Field Problems of Joint Vocational Service, Lillian A. Quinn.

The School Nurse and the Physical Education [illegible], Ethel Perrin.

Study of Nursing in Commerce and Industry, [illegible]

A [illegible] Record for Public Health Nursing, [illegible] W. Gould and Mary E. Bond.

The Industrial Nurse and Fatigue, Emily P. Osborne.

Developing Nurses of Exceptional Ability, Ruth E. Toland.

An Effective Health Library Service, Ida [illegible].

Staff Councils, Are They of Value, Bertha Houston.

Nursing Care of Tuberculosis Patients

ANNA S. KELSHAW, R.N.

IT IS impossible to discuss tuberculosis nursing in all its phases in a brief space, therefore I have merely tried to emphasize the salient features met with in the daily care of the average case of pulmonary tuberculosis.

Nurses trained in a general hospital, and unfamiliar with the care of the tuberculous, will find that a little practical knowledge in the field of psychology is of the greatest value when caring for such cases. The patient is often misunderstood, and the nurse has real difficulty in appreciating his viewpoint, unless she grasps his mental attitude.

In the first place the nurse must take into consideration the fact that the patient has been through a period of severe mental suffering after being informed of his condition, the outcome of which has been irritability, depression, a very self-centered state of mind, and a feeling that he has been cut right off from life, therefore he is very much in need of cheerful encouragement.

The nurse must interest herself in the patient's welfare; gain his confidence; and try to help him overcome his habit of letting his mind dwell continually on his symptoms, by arousing his interest in his surroundings, and outside affairs. Ability to do this constitutes a real triumph for the nurse, for when his mind is occupied, his spirits will improve, and that is a great step forward in his progress toward health. While it may be advisable at times to restrict visitors, as soon as possible a few refreshing contacts from the outside world should be permitted. The patient usually derives much benefit as well as pleasure from such visits, finding them both helpful and stimulating.

It is absolutely essential that the patient be kept free from worry and anxiety if possible, mental rest as well as physical being necessary to build up his resistance. With tactful sympathy the nurse may gain the patient's confidence, listen to his fears and apprehensions, and help to dispel them. It may appear to the nurse who is accustomed to caring for patients with acute illnesses, and not consulting them about treatment, that the tuberculous patient is dictatorial in suggesting changes; she should realize that most tuberculous patients are well informed by their doctors regarding their condition, consequently their attitude is not unreasonable and, if the nurse is willing to acquiesce in small matters which are not really vital, things should adjust themselves harmoniously.

Following is the routine daily care of an ordinary tuberculous patient. Special orders for patients with complications, treatments, et cetera, are given by the doctor.

Bath. To every well trained nurse, with the proper standard of work, the daily bath seems of paramount importance, which fact is true in most illnesses; however, in the care of a tuberculous patient, a bath every day is [illegible] really harmful [illegible], hence, the physician [illegible] of the case regulates the number of baths to be given. As a rule [illegible] two or three a week are allowed. Tub baths are never given unless prescribed by the doctor.

Temperature. [illegible] is taken every [illegible] day unless otherwise ordered by the doctor.

Diet. Three meals of a well balanced diet are given. With the

undernourished and underweight patients, the doctor sometimes orders extra milk at meals and extra nourishment between meals.

Activities. The patient's activities are guided by his temperature and lung condition. Letter writing, reading, sewing, knitting, washing of face and hands, are not indulged in if the temperature is above 99 degrees. As rest is one of the very important elements in the cure of tuberculosis, the nurse must try to save the patient all unnecessary exertion.

The patient is supposed to rest from 9 to 11 in the morning, and then, by himself, from 2 to 4 in the afternoon, on the porch, or with windows in the room wide open. If possible he is settled for the night at 10 p.m.

Precautions. It is the duty of the nurse to see that sputum boxes, and gauze handkerchiefs (which are used in place of ordinary hand handkerchiefs), are properly disposed of. They may be placed in paper bags (which, at Saranac Lake, many druggists supply free of charge) or wrapped in newspaper securely fastened, then burned. The outside container should be cleaned daily with lysol solution. It is very important that no sputum be allowed to dry on bed linen or stand covers—all spots should be washed out immediately. The patient should be instructed to cover his mouth with the gauze handkerchief while coughing. In view of the fact that tuberculosis is contracted during childhood, it is the responsibility and duty of the nurse to see that children are kept out of the patient's room. If this is unavoidable, then they should not be allowed to come in direct contact with the patient.

Hemorrhage

One of the frequent emergencies met with when caring for the tuberculous patient, is that of hemorrhage. It is a very terrifying experience for a patient, therefore the nurse must keep calm and reassure him; she must never leave the patient unless absolutely necessary, sending some one else to telephone for the doctor.

The patient should be kept as quiet as possible. Usual emergency orders are: cracked ice by mouth; ice bag placed over the heart; codein grain ¼ by mouth, or by hopodermic if unable to swallow. The position of the patient regarding pillows and other orders will be given by the doctor. Above all, try to keep the patient from becoming frightened; it might be well to assure him that a hemorrhage is very often beneficial in clearing up an old troublesome condition, since this thought often helps to quiet him and is a great relief to his mind. The diet is usually cut down one-half; fluids are limited; the patient is kept very quiet as long as there is any streaking. No visitors are allowed.

The doctor regulates the period of rest in bed. If possible, an accurate record of the size of hemorrhage should be kept in order that an intelligent report may be made.

Treatments

It might be well to mention the nurse's duties in regard to the lamp and artificial pneumothorax.

The nurse gives the lamp following the doctor's instructions regarding height, location, and duration of time. Some patients feel rather nervous during the administration of the lamp and, in this event, reading aloud is found to be a pleasant diversion.

The doctor brings all instruments, dressings, et cetera, for the giving of artificial pneumothorax. It is the nurse's duty to sterilize instruments and prepare the area of skin with iodin and generally to assist the doctor.

Of recent years there have been great advances in the development of surgical measures for the control and treatment of tuberculosis. In order that the nurse may care for her patient intelligently, it is essential that she have an understanding of what is involved in these operations.

Surgical Nursing in Pulmonary Tuberculosis

THIS includes the care of patients after phrenicectomy, pneumolysis, and thoracoplasty operation.

Phrenicectomy. The operation known as phrenicectomy, or removal of the phrenic nerve, is performed in order to produce permanent or temporary paralysis of the diaphragm on one side; it is performed on patients who are not doing well under ordinary rest treatment, but who do not yet require artificial pneumothorax or the more radical procedure known as the thoracoplasty operation.

The operation is done under local anesthesia through an incision in the neck, about an inch above the clavicle. If a temporary result is desired, the nerve is simply crushed, paralysis is obtained promptly but the function returns in from four to six months. For a permanent result sufficient length of nerve must be removed to assure breaking of the accessory attachment.

There are no special orders for the after-care of these cases. The doctor prescribes the period of rest in bed after operation.

The *pneumolysis* operation is done to free adhesions holding out the lung in cases of artificial pneumothorax. An electrically lighted instrument called a thoracoscope is introduced into the chest through a trocar and through this the operator can observe the whole interior of the chest cavity. Having found the adhesions which are preventing collapse of the lung, a slender electric cautery is inserted through another trocar, and with this the adhesions are burned through. By means of this operation, many artificial pneumothorax cases in which totally inadequate results have been obtained can be rendered satisfactory and complete collapse of the lung attained. It is most important in the care of these cases to see that patients are kept from coughing for two or three days following the operation. Dr. E. S. Welles, of Saranac Lake (from whom the preceding information regarding these operations was obtained), orders codein or other opiates to control cough. Artificial pneumothorax is given in three to four days time.

The *thoracoplasty* operation is performed in chronic cases where pneumothorax cannot be done or has not been effective. Portions of ribs on the affected side are removed to collapse the lung; it is performed under local or general anesthesia.

Following is the detailed care, in our hospital, of a thoracoplasty case, which requires watchful, experienced nursing care.

The patient usually enters the hospital the afternoon of the day preceding the operation. He is put to bed, and the operative area, including axilla and upper arm is shaved, scrubbed with green soap, and alcohol and iodin (½ strength) applied. The area is covered with sterile dressings and towels, well over upper arm, and secured with a binder. A light supper is served—no meat is given.

On the morning of operation at 7:30 a cup of tea is given; at 8:30 an s.s. enema. A second application of iodin (½ strength) on the operative area, and fresh dressings are applied. A hypodermic of morphine with atropin is given according to the doctor's

instillations about three-quarters of an hour before operation. During the operation one pint of water 100 degrees is given by rectum. If the patient does not suffer from shock during the operation and the pulse remains below 120, it will not be necessary to raise the foot of the bed when the patient returns from the operating room. In case of postoperative shock, the foot of the bed is elevated for from twelve to twenty-four hours according to his condition. The patient is surrounded by hot water bottles, and either caffein sodium benzoate, sterile camphor, or strychnin given, according to the doctor's orders. The patient is given eight ounces of tap water 100 degrees by rectum every four to six hours for twenty-four hours following the operation, according to his condition. Morphin may be ordered every three hours for pain during the first twenty-four hours; after that it is usual to reduce the dose, as the patient very soon becomes accustomed to the drug, and, if continued over a week, finds it very hard to discontinue its use. Small amounts of cold water and ginger ale may be given for twelve hours if there is no nausea.

At 6.00 a.m. on the second day we give a cup of hot tea followed by liquids, preferably hot (no milk until after the bowels move), as there is more or less flatus after operation in every case, which causes a great deal of discomfort; this may be overcome to a great extent before the second stage of the operation, as the nurse supervises the diet, and also sees that the bowels are thoroughly cleansed for several days before the operation. Morphin may be ordered during the first two or three days, if necessary, particularly at night.

At 6.00 a.m. on the morning of the third day, one ounce of milk of magnesia is ordered, followed later in the morning by an s.s. enema. Nausea is a distressing complication which in some cases may be relieved by sodium bicarbonate in water. If continuing for a few days, it may be further relieved by a dose of castor oil or calomel or by discontinuing morphin, if ordered. This usually overcomes the condition, after which and when the bowels have been thoroughly opened, the patient is ordered a full diet.

A rubber cigarette drain is placed in the wound and remains for forty-eight hours, as there is a copious discharge of bloody serous drainage following operation. Experience is required to distinguish between this discharge and postoperative hemorrhage. The patient is usually placed on his back after the operation but must be turned once during the first night to ascertain the amount of drainage. If there seems to be more than a normal amount of blood and the pulse is rapid and weak, with shallow respirations, the foot of the bed is elevated, caffein sodium benzoate is given, and the doctor notified.

The temperature usually drops to 96 degrees after operation, gradually rises, and as a rule does not rise above 100 degrees the first few days. If, at any time during the first ten days, the temperature rises to 102 degrees or 103 degrees, it is wise to take off the dressings and see the condition of the wound, as occasionally a stitch abscess forms and causes elevation of temperature. Irrigation of the wound with a 1 per cent Zonite or chlorazene solution will usually be ordered and will clear up the trouble in a few days.

Retention of purulent sputum due to the anesthetics and narcotics used, also produces high temperature, but is of short duration; as sputum increases, temperature drops.

After forty-eight hours the arm on the affected side is gently massaged

[illegible]

and the patient is encouraged to lift his arm and gradually use it; if this is not done, he suffers considerable pain from disuse. The patient must be turned on his side two or three times during the day, resting for one-half hour if possible. It is well to raise the head of the bed as this facilitates the cough. Small pillows may be placed under the arm on the affected side to relieve strain; also under the back when the patient is on his side.

If there is difficulty in voiding urine at first, there is no objection to sitting the patient up on the pan, in bed (if his pulse is good) a nurse on either side supporting him.

The stitches are removed on the eighth day and a chest-supporter applied to the side; also a two-pound bag of shot is placed over the apex for pressure. There can be no set rule in regard to the position of the patient, as some find resting on their backs most comfortable, and others prefer the side; but for the long hours of the night, most patients prefer the back.

It is a great help to patients with a troublesome cough to have the nurse place her hand on the affected side and press down during paroxysms of coughing, as this effort is very painful at first; also aromatic ammonia, (½ drachm in hot water) and glycerin lozenges may be ordered. Dr. Wallis orders codein at night for cough, but prefers to have the patient raise the sputum during the day without the aid of drugs.

The operation is usually performed in two stages, an interval of three weeks elapsing between the first and second stage, according to condition. Occasionally it is necessary to perform it in three stages. Preparation and after-care is the same each time.

The patient remains in the hospital about six weeks. He is then removed to a nursing cottage, as it is desirable to maintain bed rest from three to six months in order to make a satisfactory recovery.

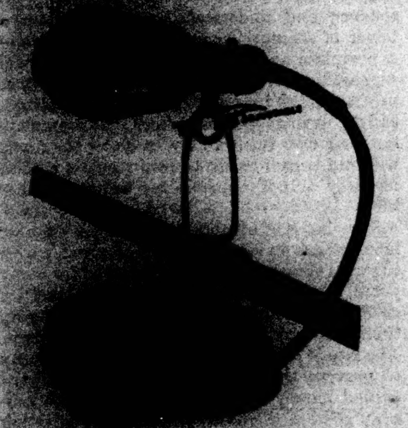
In conclusion, let me state that too much emphasis cannot be placed on the importance of physical and mental rest, in the cure of pulmonary tuberculosis.

Medical Social Service

THE social point of view is not easy to define. It is, perhaps, the point of view that leads us to consider the relation of an individual to his surroundings, his home life, his work and to his fellow-men, and to take into account his desires, aspirations and human weakness. Problems in social diagnosis and social treatment are constantly before us in our hospitals and dispensaries, and for the sake of our students' training and our patients' welfare, they should not be ignored. But in the complexities of hospital practice, replete as it is with exact scientific problems, is not the human note somewhat submerged? Whose duty is it to understand the human problems which surround but are apart from illness? Who is to study with a true sympathy and friendliness the troubled spirit? We all know that the recovery of many patients can be hastened by [illegible] New York City.

A Convenient Treatment Light

EQUIPMENT for hospital use is not always found in hospital supply houses. Occasionally some one with imagination sees other



A Convenient Treatment Light

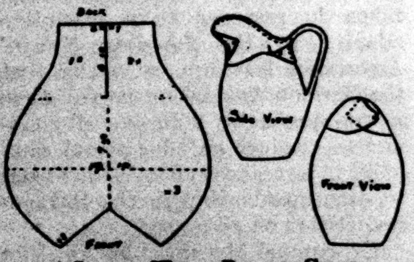
use in equipment designed for use in a quite different setting. At St. Luke's Hospital in Chicago an ordinary garage light, costing from $2.00 to $3.50, has been found admirably suited for use in catheterization, the removal of vaginal packs.

The advantages of a light such as the one shown for work of this kind are several: It has a wire guard about the bulb so that it can be laid upon the bed without scorching the linen; one side of the bulb is shaded with green so that the light does not shine into the doctor's or nurse's eyes; it is fitted with a strong clamp which enables one to fasten it to the foot of the bed, on the screen, or in almost any desired position, leaving both hands free for work; it can be had fitted with a hook by which to hang it up if desired; and the cord is protected by a spring where it attaches to the bulb, thus safeguarding it against breaking and short-circuiting. The light in the illustration is made by the Glade Manufacturing Company of Chicago.

Sterile Water Pitcher Cover

EMMA L. STEPHAN, R.N.

THE water pitcher and cover shown here illustrate a simple method for keeping sterile water in the operating department. The cover is made of a double thickness of [illegible] muslin. It measures 14 [illegible] width and 11 inches in length, [illegible] a 4-inch slit at the back [illegible] the cover to lap over at the back of the pitcher under the handle. [illegible] on each side provide for a [illegible] Two dress snaps are sewed at the back, 1 and 2 in the illustration, and one snap at the front, 3 in the illustration. These covers fit almost any pitcher. They are autoclaved and when the water is to be used they can be easily and rapidly unsnapped without breaking technic. They are neat and convenient.



A Sterile Water Pitcher Cover

Miss Hall Represents the Harmon Association

A GROUP of people interested in the nursing profession and some of its problems met with the Executive Committee of the Harmon Association for the Advancement of Nursing on Wednesday, September 24, to welcome Carrie M. Hall as Field Representative of the Association. Miss Hall has now started on a five-month trip throughout the country to explain the workings of the Harmon Plan, and to give information on insurance and investments at state and district meetings of nurses to be held this fall and winter.

Miss Hall, as nurses well know, held an outstanding position in Europe during the late war, and has been President of the National League of Nursing Education. She organized and is Principal of the School of Nursing of the Peter Bent Brigham Hospital in Boston. For two years Miss Hall has been Chairman of the Relief Fund Committee of the American Nurses' Association. She also has been a trustee of the Harmon Association and was one of the first to take advantage of the Association's plan for retirement incomes by putting some of her own savings into it.

Miss Hall's present work is undertaken in response to a resolution adopted by the American Nurses' Association last January, asking that the Harmon Association employ some person, preferably a nurse, well qualified to conduct an educational campaign in insurance and investment and to urge membership in the Harmon Association on all nurses.

Dr. Samuel McCune Lindsay, Vice President of the Association and principal speaker at the luncheon said:

No one knows better than Miss Hall the nurses' unselfishness, and their carelessness in looking after futures, while they lavish their money and their care on others. Miss Hall learned in her youth, as did most of us, that she has two duties to perform, one to God and the other to her neighbor, but now that she is older she realizes that there is a third duty, the duty everyone owes to oneself.

She will show that it needs only vision, persistence and understanding to build up a tower of strength against the possibilities of a penniless and [illegible] old age. She will suggest that every nurse join the Association, paying month by month, either $5.00, $10.00, $15.00, or what they can afford, to accumulate for their own future. By so doing the nurse will find herself ready to retire with a regular monthly annuity income for the rest of her life.

The history of the Association's coming into being is an inspiring story of a man's wish to repay the services he had received for many years from the nursing profession, not by gifts to individual nurses, but by setting up the machinery to help them help themselves. The late William E. Harmon looked for a way to prevent the nurse from wasting her hard earned money on things which, though possibly good in themselves, would not solve her main problem of providing for herself. He called together a group of experts who had no financial interest in the matter, and some of the heads of the nursing profession, and they evolved a plan which they felt to be more advantageous than the individual nurse could get for herself.

This plan has been tried out through a preliminary experimental period and in its final form has been in operation for two years. The first to join have been many of the leaders of the nursing profession and heads of training schools. But they believe, as does the Association, that some quicker method of spreading the news of the plan should be adopted, and it is in response to this demand that Miss Hall will make her tour. However, [illegible] Copies of [illegible] the office of the Harmon Association for the Advancement of Nursing, [illegible] New York, and will be sent [illegible] on request of any registered nurse.

Program chairmen for district and other meetings should communicate with Miss Hall at once at the above address in order that the brief five months of her special service may be utilized to the utmost.

An American Missionary Hospital

On the Burma-Chinese Border

S. LESLIE BELL, R.N.

HIGH on a hilltop overlooking the Schweli River a few miles from the Chinese frontier in Upper Burma stands a big teak and plaster structure. From the outside it does not look very much like a hospital.

We reached it on ponies—after an hour's ride—over a sun-baked plain across which journeys always a motley crowd; Shan women in their high headdresses, carrying loads of wood which they get many miles away, for fuel is scarce on the plateau; smiling Chinamen smoking their long-stemmed pipes; Kachins in their picturesque costume—short black velvet jacket, embroidered red and blue skirt, and straight blue leggings. The girls wear their coal-black hair in a heavy fringe over the forehead and their heads are uncovered, while the married women have a swathed head-dress of black cloth with brilliantly embroidered ends.

Besides these there are Indians, Burmese and even one or two Gurkha soldiers from the military escort which accompanies our host—the British Commissioner.

The hospital is run by the American Baptist Mission and the staff consists of the surgeon-in-charge and his wife, [illegible] Burmese nurses in training and formerly an American graduate nurse who has, unfortunately, succumbed to tropical disease and will be unable to continue her work there.

"How long is the training?" I asked the doctor.

"Three years" he answered. "We use [illegible] textbooks, translated from the English, of course; but naturally the practical work is the important part."

"What becomes of the graduates?"

"Well, some of them go on as midwives, one of them is running a little dispensary in a village nor far from here, and sometimes they stay on here as assistants. The idea is that they should go back to their people and spread the good news that many of the ills they suffer from are both avoidable and curable."

Temperature, pulse, respiration, dressings, charting, catheterization—the work seemed pretty much the same as ours, I thought. The "wards" were a bit different! Also the patients wore their ordinary clothes—no hospital shirts here. But the treatment they received was the same—adapted of course—as that given to patients in the hospitals with which one is familiar.

The doctor was speaking again:

"For a long time I used to give all the irrigations to the male patients with gonorrhea. But a little while ago I put it to the nurses, and they rose to the occasion splendidly. Now I can trust them to do it entirely by themselves. Same with catheterization of men patients. Everything is done by the nurses except anesthetizing. That is done by my wife."

I looked over at the "head anesthetist," scarcely more than a girl, though already the mother of two children. How had she managed with no preliminary training of any sort to tackle the difficult business of assisting her husband during operations?

"What sort of cases do you treat?" I inquired next.

"Quite a variety,—goitre, gall-stones, cataract, pneumonia, dysentery, abscesses, opium addicts. We get them all. I've had perfectly astonishing results in goitre simply with iodin treatment. In one village the people were in such a bad way that I left a supply of iodin with the headman and gave him instructions how to administer it! About a year after, I passed through the same village, and you simply wouldn't believe the change there was in those goitres! By far the largest number of them had completely disappeared. If I told the people at home about it I doubt if they'd credit the story!"

Apparently the great difficulty in skingraft cases is to get the skin properly cleansed. Of course unless it is in a perfectly healthy condition the graft will not "take." The doctor stopped beside a bed on which a lad in his teens was squatting.

"This boy has been with us five weeks. He was unloading some stores when a packing case fell on this leg. You never saw such a fuss as it kicked up, but he's making a good recovery now."

I glanced at the wound and the place from which the graft had been taken. The dark skin surrounding it looked firm and healthy, filling up evenly with nice granulations. We moved on to the next bed.

"This is a tubercular peritonitis. About all we can do is to open the man up, expose the lesion to the sun for a short time, and then sew him up again."

The next case was anemia following dysentery.

"What are you doing for him?" I asked.

"He's getting large doses of salvarsan," returned the doctor. "He seems to yield pretty well to that treatment."

Passing under a low archway we entered a smaller room where a tiny baby was crying lustily.

"Syphilis," remarked the doctor. "She's only three months old. We're giving salvarsan, of course." In parenthesis, the Kachins (a hill tribe who make up a large percentage of the hospital inmates) say that until they came in contact with Europeans, venereal disease was unknown amongst their people.

The obstetrical "technic" of the Kachins is worth a passing note.

When parturition is imminent, neighbors and friends arrive, the men remaining in the common room while the women assist the unfortunate parturient. Any woman may give a hand—there is no professional midwife. In order to facilitate delivery, the woman is made to drink hot water in which has been dipped the dry head of an eel or a bit of a dry navel string.

If the labor is prolonged and difficult, the nats (spirits) are invoked. If in spite of this measure the delivery continues difficult, the cause is attributed to the Sauns (shades of women who have died in childbirth). The house is ransacked in search of these spirits, to the accompaniment of horrible noises. Swords and knives are brandished. Inside and outside the house are burned stinking leaves with rice and pepper and anything else guaranteed to produce an unsavory smell.

As soon as the baby is born it is given a name. This is in order that the nats may realize at once that the baby belongs to someone—that it is, so to speak, a private baby. Then the mother herself, or one of the women who has had many children, cuts the umbilical cord. The mother is stimulated by drinking beer or brandy, and should there be any difficulty in expelling the placenta the husband is

called in to give a hand by pressing the wife's head with his foot.

After three days, during which the puerpera remains indoors, she resumed her normal life of heavy, manual labor.

Premature birth is always attributed to the ill-will of the nats, and death during childbirth is looked upon as a terrible calamity. After the woman has died, husband, family, and friends flee from the house in order that her spirit may not bite them!

From the above it can be imagined what a field lies open to the ante-partum welfare enthusiast.

Before leaving the hospital we paid a visit to the operating room. A cement floor, slightly uneven in places, had been put down not long before by the surgeon-in-charge. "Running" water was supplied by a large, square tank fitted with a tap. Before an operation, this is filled with boiled water and used as required. The operating table and steriliser were of recent design and fairly new.

A new wing is in process of being added to the hospital, for which every bit of material must be transported two hundred miles in a Ford motor-lorry.

The sun was sinking as we mounted and took our leave. Riding slowly down the winding track towards our camp, some words in Browning's "Last Ride Together" came unbidden to my mind: "There's many a crown for who can reach."

Properly Fitted Shoes[1]

An Economic and Health Problem

RUBY B. DAVIS, R.N.

THE feet of a nurse are an essential factor in her work. When a student nurse realises that correct posture depends on the condition of her feet, she will be far more willing to wear properly fitted shoes. The students should know that properly fitted shoes are the probable means of preventing various foot ailments as well as many other physical defects and disorders. To maintain physical fitness while in training, a well constructed shoe, that has been chosen as regulation, should be worn and each nurse should be properly fitted. Many schools of nursing do not improve the health of a nurse while in training because of the poor selection of the shoes worn by the nurses. This is an indictment of those in authority. The nurses' uniform is distinctive, and has a unique place in the professional life, and nurses should ever take pride in a correct uniform. The nurse should know the place of the uniform and the distinction it carries, and differentiate it from the dress for other occasions.

The foot is composed of twenty-six movable bones which must be allowed freedom to function naturally. Feet were not constructed for shoes; hence, the shoes should be constructed as nearly as possible to conform to the human foot. A shoe, to do this, must be perfectly flexible so as to work with the foot and not against it. Shoes that are stiff and unyielding in the arch do not allow the muscles of the foot proper exercise, and, as the bones

[1] Read before the Texas State Nurses' Association, [illegible], Texas, May, 1930.

of the foot are held in place by muscles, it is necessary that these muscles be kept healthy and strong through natural exercise. A shoe need not be a corrective shoe, but essentially a correct shoe.

The foot which is placed in a correct shoe will correct itself naturally when allowed to function properly.

Not all feet are normal; however, conditions arising from abuse of normal feet are highly preventable. Abnormal feet may be of the congenital type, or the condition may be acquired, as from injuries or disease, or from long continued abuse by improper shoes. Congenital types of deformity are not easily corrected, and therefore must be relieved by correct shoes and such other treatment as an orthopedist may suggest. Acquired deformities from injury and disease are preventable only in such measure as we are able to avoid the source of their origin. Intelligent coöperation between an orthopedic surgeon and a shoe dealer may exert a corrective force and permit the unhindered development of the foot along normal lines.

Too short shoes cause corns, bunions, hammertoes, and various other defects. They prevent the toes, especially the smaller ones, from exercising their normal weight-bearing function at the last part of each step. Instead of the important part played by the spring action of these toes in normally sharing the weight with the ball, the latter must carry the whole load rigidly and without spring.

Thick callous develops under the ball of the foot and becomes extremely painful and disabling. This is one of the commonest forms of acquired foot trouble, and is attributed to "fallen anterior arch."

The heel of the foot should carry two-thirds of the body weight. The original foot protectors possessed no heels, but the heel is a fixed factor in the modern shoe, and it should be broad enough to continue the leg and foot column down to the ground with the greatest security and lateral stability.

At dawn many patients are awake, awaiting the cheery "Good morning" from the nurse, and find courage and comfort in her energetic manner which is a tonic radiating from buoyant health and spirits. Professional cheerfulness is expected every day of the nurse, but is it fair to disregard the hardships and discomforts of her duties? Can we reasonably expect her to keep cheerful when working on floors that are hard and non-resilient, and in shoes that fit her feet incorrectly and do not form a sensible anatomical support? Who can be cheerful when little, if any, attention has been given to the proper selection of shoes?

How many nurses enter training whose feet are not injured, but in a few months have corns, broken arches, and bunions developing because the hospital executives failed to recognize this economic problem? And the nurse's cheery "Good morning" fades into a tired "Good night." For three years a nurse is in training in the hospital, a long epoch in the life of any human being, long enough to lose health, and to cause great economic waste, or to be a favorable factor for a successful career with duties that are pleasant and health that is good.

Bacterial Destruction through Glass

JEAN BROADHURST AND THEODORE W. HAUSMANN

INVESTIGATORS have recently emphasized the very obvious fact that ultraviolet stimulation of the skin or tissues of a patient, or other room occupant, occurs only when the light rays actually reach the individual; and that, as might be expected, such stimulation varies directly with the amount of light received, depending upon the individual's nearness to the window and whether the window contains ordinary window glass or glass which is permeable to ultraviolet light.

The same limitations exist with regard to bacterial destruction by light, of course; but since air circulates throughout a room, any agent which kills the bacteria in any part of it must affect the bacterial content of the room as a whole. From this point of view, there would, therefore, be a real advantage in replacing ordinary window glass with glass which is more permeable to ultraviolet rays; and two different types of experiments were undertaken to determine the relative bacterial destruction which may be obtained with (1) unobstructed or open sunlight, (2) sunlight through plate glass, and (3) sunlight through one of the more "permeable glasses" now on the market.[1]

In both types of experiments we used cubical wooden boxes about twenty inches in diameter. Each box had a removable top, which could be taken off to allow the sun's rays to enter the box unimpeded, or which could be replaced by plate glass or by the more permeable glass. The boxes were exposed on the roof of a four-story building, and the position of the boxes was adjusted at short intervals (fifteen minutes) to make sure that the sun's rays fell perpendicularly into them.

As stated before, two very different types of tests were conducted. In the first type of these box tests, we compared the various light effects on bacteria growing in agar plates which had been placed on the floor or bottom of the box. In the other type of tests we tested the light effects on the bacteria contained in the air of the boxes, by pumping out samples of air to determine the relative rate at which the bacteria originally present in the air had been destroyed by the light entering the boxes.

In making the first or agar plate tests we flooded the surfaces of sterile agar plates with equal amounts of a dilute culture of bacteria, placed two or three of the plates in each box, and allowed the sun's rays to fall perpendicularly into the various boxes and on the plates of bacteria inside of them. Many exposures were made with three different kinds of bacteria *Staphylococcus aureus*, *Bacillus coli communis*, and *Bacillus prodigiosus* (or *Serratia marcescens*). The length of exposure to light varied with the conditions: intermittent or continuous sunshine; the time of day; and the season of the year (July to February). Most of the exposures were for thirty- to sixty-minute periods, but in four the period was quite prolonged (three hours), because of frequent cloudy intervals occurring during the exposure periods. Several tests were interrupted by complete changes in the weather, but ten successful sets of exposures were finally made. After exposure to the

[1] [illegible] of glass used were of about [illegible] the permeable glass (Vita- [illegible] and the plate glass 3 mm. [illegible] had previously been solar- [illegible] stabilized by a total of [illegible] exposure hours.

FIGURE 1.—Agar plate pictures showing the relative numbers and sizes of the colonies developing in the dark (D) and when exposed to light: S, direct sunlight; V, light passing through Vita-glass; and P, light passing through plate glass. The actual counts on the whole plates were D, 900; S, 300; V, 420; P, 640

several light conditions, the plates were incubated at temperatures favorable to the respective bacteria for two days, when the colonies which had developed were counted.

Much the same result was obtained with all of the three species of bacteria used. Quite typical is the following record for one series of *Staphylococcus* plates exposed for fifty minutes in August, when the original number of bacteria present was 900 per plate: an average of 300 colonies developed on the plates in the no glass, or full-sunlight, box; 420 on the plates with the permeable or Vitaglass top, and 640 colonies in the plate glass box.* In other words, unimpeded sunlight had killed 600 of the original 900 bacteria; the light transmitted through the permeable glass had killed 480, while the light passing through the plate glass had killed but 260 of the original 900 present on the plate.

In several instances, the destruction by unimpeded sunlight and the permeable glass was proportionally even higher than the figures just cited. But, averaging all the results obtained with the three kinds of bacteria named above for the varying exposure periods, ranging from thirty minutes to three hours, we may say that nearly three-fourths of the bacteria originally present were killed by sunlight without glass, somewhat more than one-half were killed when the permeable glass was used, and a trifle over one-fourth when plate glass was used.

It is interesting to note also that the colonies developing on all such series of plates vary in size as well as in number, as may be easily seen in the accompanying photographs, the smallest colonies being found in the full sunlight plates, and the next smallest [illegible] under permeable glass. The full [illegible] of this difference in colony size is [illegible] when we [illegible] [illegible], [illegible], the [illegible] colonies are found on the more [illegible] plates. This indicates that [illegible] growth or reproduction is less rapid in bacteria receiving the most ultraviolet rays. Such loss of vigor by the

* All counts recorded are for the nearest ten, number 259 becoming 260, et cetera.

bacteria which do survive must be an important factor in their power to grow afterward in our foods, body [illegible], and must favor also their possible later destruction by [illegible] rooms or air conditions, such as drying and unfavorable temperatures, before opportunities for growth [illegible].

Much the same differences as those given above were obtained in the second type of tests in which bacteria-laden air in the boxes was tested after exposure to light passing through plate glass and through permeable glass. This type of test was done by charging the boxes with fine powdery material (peptone) carrying bacteria, and then subjecting the air in the boxes to sunlight passing through the two types of glass covers. After such exposures were made, each glass top or cover was sealed to the box with collodion, and equal amounts of air were then pumped from the boxes simultaneously by electric pumps into a series of three bottles of sterile water. As the air was pumped out of a box into the bottles, the new air entering the box was filtered through a filter of wet, tightly-packed absorbent cotton so as to prevent the introduction of organisms from the outside air.

Equal amounts of each of these air wash waters, with their collected bacteria, were then mixed with melted agar and used to make agar pour plates. After two days of incubation, the colonies which had developed on the plates were counted to determine the relative number of live bacteria left in the two boxes, and, conversely, the rate at which the bacteria had been killed off by each of the two light conditions. In seven such sets of tests, the destruction was two to four times as great in the permeable glass box as in the plate glass box. Comparative counts of the total bacteria present in the wash water from the permeable glass box and from the plate glass box give such survival differences as 350 bacteria to 750 bacteria, 850 to 3100, 1000 to 2450, and 200 to 800.

Unexpected difficulty was met in this second type of experimental tests. At first, liquid cultures of micro-organisms (*coli*, *Staphylococci*, yeast)

[illegible] plates obtained by using one cc. of water used in washing air ex- [illegible] V, to light passing through Vita-glass; P, to light passing through plate glass

[illegible]

were sprayed into the various boxes; and, after exposure to light, motor-driven pumps exhausted the air simultaneously into sterile water, as above described. When the plates made from the water were incubated they proved to be practically sterile, indicating that our spray particles had been too heavy and had rapidly settled down to the lower part of the box, adhering to it. Using larger amounts or volumes of spray made moisture collect on the glass covers of the box, interfering with the passage of the light. We next tried using dry, pulverised suspensions of bacteria, but again failed to secure many colonies on the plates, probably because our particles were still too heavy or because the bacteria were injured by the pulverizing process.

We next used ordinary peptone, remembering its natural high bacterial content. We dusted it into the boxes by careful hand-controlled "shakes" from a half filled pepper box or a partly filled muslin bag, the "shakes" given singly to each box in turn until each had received an equal number (10, 20, 100) of "shakes" of bacteria-laden peptone. The results obtained with this somewhat crude method have been consistent; and since they tally with those obtained in the first type of tests described in this paper, they merit consideration.

We may say, therefore, that the results of these two types of experiments indicate that the bacterial content of room air may be definitely lessened by the use of glass permeable to ultraviolet light. They suggest also, that if a glass or window tax is ever again imposed, it should not be like that of 1696, which taxed windows as such, but rather a tax which discriminates in favor of glass which transmits ultraviolet rays.

Hospital Social Service and the Student Nurse

THE nursing care of a patient who was operated upon and found to have extensive carcinoma may be relatively simple; to assist in the giving of deep x-ray therapy to such a patient requires more technic; but to understand the cancer patient often means that the nurse must appreciate the dread which many persons have of this disease, must realize what one day after another in bed and with constant pain may mean unless there is some diversion, some interest on the part of friendly individuals together with nursing care that brings comfort, and a physician to supervise and prescribe drugs when the pain cannot be endured. Nor is the picture complete thus. We must face also what this patient's incapacity may mean to his family group. Is the patient the mother, for whom housekeeping or homemaking plans must be made, or the father who has been the wage earner of the family? A discussion of such situations will give understanding to the campaign for the early diagnosis of cancer and enlist the student's support before she graduates and goes out into the world where she will be looked to for support in all health measures.

The medical and nursing care of the orthopedic patient is important and must be long continued, but what is of greatest interest to this young woman—thirty years old—with tuberculosis of the spine is whether she is [illegible]

Dangers in the Use of Barbituric Salts[1]

OSCAR W. BETHEA, M.D.

THE present widespread use of this group of preparations makes it necessary for those having the welfare of the public in their keeping to be conversant with the dangers that may attend their use.

There are many of these salts differing slightly in chemical composition, in dosage, and in some of their effects, but having therapeutic properties and unfavorable possibilities in common.

Among the most commonly known are barbital, phenobarbital, amytal, and dial. The first two of these were originally introduced to the profession (and unfortunately fell into the hands of the public) as patent medicines or, to use the trade term, "ethical proprietaries." Barbital was known as veronal and phenobarbital as luminal.

Our patent laws permit foreign manufacturers to patent their products in this country and to sell them at any price they may see fit to ask. There are, however, several requirements that the manufacturers must meet; one of these is that the preparation must be available at some price. During the World War many manufacturers could not meet the requirements and the patents were declared forfeited. Among the many medicines that fell under this group were the two just named, so American manufacturers were permitted to make them under names that gave some index as to their chemical composition and these two drugs are now in the Pharmacopeia.

The barbituric acid radical, known chemically as malonyl urea (CO (HN CO)$_2$C), is the same in all these preparations. It is dibasic and the salts are made by combining other radicals with it. Barbital contains two ethyl radicals (C_2H_5). Phenobarbital contains one ethyl and one phenol radical (C_6H_5). Other preparations contain amyl, methyl, or other organic radicals.

Not only are there other related salts on the market but many elixirs, other solutions, and combinations of them are being sold. Veronal and luminal are again being marketed under their original names.

All of these preparations are hypnotic, sedative, and antispasmodic and when properly employed most of them have a large field of usefulness. However, our interest now is in the unfavorable side effects. These will be discussed under the heads of skin eruptions, psychoses, and death.

The skin manifestations may assume any one of a variety of forms. I can better illustrate a common type by describing a personal experience.

Some time ago, under conditions of unusual stress, I took 3 grains of a well known proprietary preparation of this group. There was a pronounced skin reaction, but I attributed it to a food disturbance. A month or two later I again violated a principle of a lifetime and took 3 grains of the same preparation, and it was followed by the same symptoms. I waited for about a month, selected a time when my physical condition was at its best, followed the most careful possible diet for several days, and again took 3 grains of the same preparation and prepared to make careful note of developments. The drug was taken at 10 p.m.; at 10.30 there developed an active pruritus, referred particularly to the back and lower limbs. At 11.05 there began to develop large

[1] Read at the Sixth Annual Institute of the Louisiana League of Nursing Education, New Orleans, April 23-24, 1930.

areas of dermatitis. This was somewhat magenta in color, irregular in outline and in the size of the various lesions. The largest was about 15 cm. in diameter. At the same time there also developed a tingling sensation of the soft palate and the roof of the mouth, and some itching of the left upper eyelid, but no evident lesion appeared there. There was no tendency to the induction to sleep, but rather a sense of solid mental confusion, and pronounced wakefulness. Not only did the lesions itch but there was a burning and tingling sensation. I noted also that the identical areas were involved with apparently the same size lesions as on the two previous occasions. The eruption did not entirely subside for about two weeks.

The best description I have found of the barbituric acid psychoses is that by Dr. Lambert of New York. He has been able to establish that the mental developments are usually along certain definite lines, the most common type being that of paranoia, that is, these patients feel they are being persecuted, mistreated, and neglected. This impression is usually directed towards members of the household and not often toward the physician or the nurse. I can illustrate by citing another case:

Mrs. J. W. was suffering from arthritis when she rather suddenly developed an active mental imbalance in which occasional periods of active delirium alternated with longer periods during which the mental processes were apparently normal, but during these she confided to me the most distressing accumulation of domestic disturbances. It seemed that her mother and husband did not love her any more, neglected her outrageously and would be glad to see her finally laid away; that her children were ungrateful, disobedient, neglectful, and unkind. Only my intimate knowledge of the persons concerned and of the actual conditions existing in the household caused me to know that she was suffering from delusions. I had the nurses watch the patient with greater care, and they discovered a partly used bottle of phenobarbital tablets secreted under her pillow. The mental condition cleared up after removal of the drug.

Many cases of death have been reported from the use of these preparations. The following two instances are among those that have come within my personal knowledge:

The wife of Mr. J. M. developed a severe headache. She felt that if she could go to sleep she would be relieved. He purchased a half-dozen veronal tablets and sent them up. At the close of the day when he reached home he found his wife in coma, and she died a few hours later. The empty box that had contained the tablets was on a table by the bed.

Mr. C. L. was put in an institution to break him of an unfortunate habit. Within a few days he developed a psychosis which was promptly followed by coma and death. A partly used bottle of luminal tablets was found hidden in the bed.

Those fatal cases that I have witnessed have been characterized by profound coma, stertorous breathing, cold moist skin, profound cyanosis, and increasing pulmonary edema.

The principal trouble with these preparations is that there is no restriction on their sale and the public has the impression that they are harmless. As to whether or not they are directly habit-forming is a matter of question. I believe that they are. Aside from the danger of skin eruptions, psychoses, and fatality there is the additional danger that an individual, by self-medication with a sedative drug, may mask the symptoms of actual disease until the time for possible benefit by proper treatment has passed.

I should be glad to feel that nurses, with their splendid opportunities for educating the public along lines of correct living, would wholeheartedly join with the medical profession in their crusade against the use by the unskilled public of the barbital acid compounds.

The Nurse's Responsibility in Diphtheria

VIRGINIA BOYER MILLER, R.N.

"RING out diphtheria in 1930. Ring in health for children. Protect them with toxin-antitoxin."

This slogan in all the street cars of a large city is a favorable sign. People will notice it and turn to nurses and doctors for further information. The nurse's responsibility is great. Every nurse, whether in private duty, education, visiting nursing, or any other division must be a public health nurse and be able to answer intelligently all the questions of her patients and friends on this subject. In fact, her responsibility is greater than the mere answering of questions. She should appoint herself an educational committee of one to spread the tidings that diphtheria, a disease known since ancient times, need no longer exist. "Diphtheria is conquerable! How long shall it remain unconquered?" is the effective conclusion of an article for lay people in the March *Hygeia*. But to teach implies knowledge. The nurse must know her subject thoroughly and have no questions or doubts in her own mind. This paper will attempt to answer the questions nurses have been asking; to give a clear summary of the latest and most accurate knowledge on this subject.

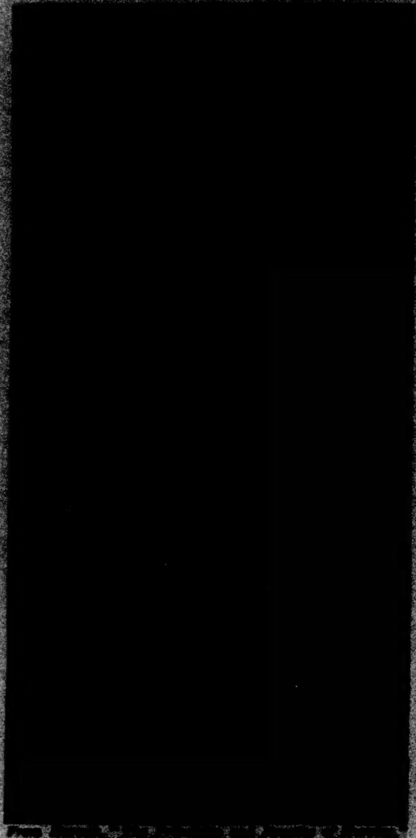
Definition

DIPHTHERIA is an acute, specific infectious disease caused by the *Bacillus diphtheriae*. It is characterized by patches of false membrane formed chiefly on the mucous membranes, especially of the throat and respiratory passages, and by constitutional symptoms due to absorption of toxin from the local lesion. The course and the prognosis of the disease depend upon the treatment—the prompt use of antitoxin.

Bacteriology

FROM the definition it is seen that the cause is known. In 1883 Klebs described the bacilli in diphtheritic throats and Löffler isolated them in pure culture. Half the battle was thus fought nearly fifty years ago. In 1891 von Behring and Weinche discovered antitoxin for the treatment of the disease. In 1913 Schick discovered the susceptibility test given his name. In the same year von Behring found the application for this test in the use of toxin-antitoxin. Those whom the Schick test showed non-immune to diphtheria were to be given toxin-antitoxin to produce an immunity. The cause, treatment, and prevention are known. Education of ourselves and the public remains.

The organism causing diphtheria is a slender, straight or slightly curved rod, often club-shaped at one to both ends. When stained with Löffler's alkaline methylene blue for five to ten minutes it often gives a striped or beaded appearance, sometimes resembling short chains of streptococci. It is Gram positive. The bacillus is a non-motile and non-spore-forming aerobe. It is easily killed by heat—58 degrees C. for ten minutes or boiling for one minute. Thus, pasteurization of milk at 62 degrees C. for thirty minutes kills this organism, and therefore there is no excuse for epidemics of diphtheria due to infected, non-pasteurized milk. But all food cannot be pasteurized, and since a low temperature, even freezing, is well borne by *Bacillus diphtheriae*, carriers of the disease should not be permitted to handle food.



[illegible]

FIGURE I.—Method of restraining a child for an examination of the throat

Diagnosis

A PROMPT diagnosis is of extreme importance, as the efficacy of antitoxin depends largely upon its early use.

A. *Clinical Diagnosis.*—This is the field, of course, of the physician, and is the deciding factor when the bacteriological diagnosis cannot be made, or when the results of the culture cannot be known for twenty-four hours or more. This responsibility may also partially fall on the nurse. She must be able to advise the calling of a physician.

B. *Bacteriological Diagnosis.*—Cultures of all suspected throats should be made on Löffler's blood-serum media. This is done by the nurse, or by the doctor with the nurse's aid. The procedure will be described in detail because it is very important that the nurse be able to do this well from the bacteriological standpoint.

Nose and Throat Cultures

I. *Equipment.*

Tray with:

1. Two squares of newspapers or towels for each patient.
2. Sterile tube with Löffler's blood-serum culture media. Be sure culture media is fresh and moist. Do not use tubes in which serum is contaminated, liquefied, or dried. (Culture tubes may be obtained from city or state health departments.)
3. Labels.
4. Three sterile applicators for each patient.
5. One tongue blade for each patient.
6. Container for test tubes (box).

II. *Procedure.*

1. Leave tray in clean area.
2. Label test tubes fully, placing label near mouth of tube in order not to obstruct sight of bacterial growth.
3. Place square of newspaper or towel on central table to make clean area on which equipment may be placed. Wrap tube near top with newspaper in order to hold tube without contaminating it.
4. Have child in a good light. Use an artificial light to shine into throat if necessary.
5. Put on gown.
6. Wrap child in mummy fashion or otherwise restrain. (See Fig. I.)
7. Depress the tongue.
8. Observe throat as to redness, presence of membrane, white patches. Then rub sterile cotton swab gently, but firmly, over posterior wall of throat and over both tonsillar areas, revolving the applicator.
9. Remove cotton plug from test tube of culture media, holding plug away from the palm of the hand or anything that will contaminate it. (See Fig. II.) Insert swab to bottom of slant, rotating applicator with a direct upward stroke over the entire surface of the media, using care not to rupture media.

Hold tube with finger on newspaper. Take at least one-half minute to this whole operation. Do not allow swab to touch anything except diseased patches and surface of media.

10. Replace cotton plug. (If a Bunsen burner is available the mouth of the test tube should be flamed both after removing the plug and before replacing it.)

11. Place the tube in the container, releasing the newspaper holder. Discard the paper into the waste basket, which has been lined with a paper bag, to be burned.

12. Nose cultures should be taken on children and carriers. Use separate test tubes for each nostril and for the throat, if so desired by doctor. Use the same procedure.

13. Discard applicators and tongue blades into the waste basket. If a test tube is used for applicators, as in the illustration, replace in its own tube.

14. Scrub hands.

15. Remove gown.

16. Pick up container of culture tubes.

17. Discard the paper used to make clean area, touching only the clean side.

Note.—When two people are available, one may remain clean and supply the second with equipment. The nurse taking the culture wears a gown. This procedure, especially the wearing of the gown, may be adapted to circumstances.

18. Place culture tubes immediately in the incubator where they are to be kept at 37 degrees C. for eighteen to twenty-four hours. Do NOT carry them about for hours after inoculation. Never place them in an ice box! (As nurses have been known to do!) The nurse's responsibility is great, as much depends on the fastest possible bacteriological diagnosis of the organism.

Unsatisfactory cultures, exhibiting insufficient growth or contamination by foreign bacteria, usually result from failure to follow directions carefully.

The physician places only a moderate reliance upon a single negative culture and gives antitoxin in a doubtful case. A more accurate bacteriological diagnosis is often made later. The above method of culture inoculation should give a positive diagnosis in almost all actual cases of diphtheria.

After eighteen to twenty-four hours the bacteriologist makes a slide stained

From Sanders, "Modern Methods in Nursing," by permission of the W. B. Saunders Company, publishers

FIGURE II.—Method of making a smear culture

with methylene blue and examines it microscopically. Because of the selective power of Löffler's media for the diphtheria bacillus and because of its very typical structure when viewed under the microscope, a satisfactory diagnosis can generally be made.

Pathology and Symptoms

IN order that the nurse may have a complete picture of the patient and understand the reasons for the symptoms she observes, it is necessary to consider briefly the pathology. Much of this is becoming a thing of the past, but it is given to contrast the disease of yesterday and today and to show the value of prompt antitoxin treatment.

The disease produces both local and general symptoms due to local and general pathology.

A. *Local Symptoms.*—An inflammation of a fibrinous or fibrino-purulent type is caused by *Bacillus diphtheriae.* There is destruction of the superficial epithelium followed by fibrin formation. The so-called membrane results, and is composed of the

following things: fibrin mesh, epithelial cells, white blood cells, diphtheria bacilli, and other bacteria. The mucous membrane of the throat, larynx, nose, and more rarely the middle and external ear, are the sites of the inflammation. Occasionally the vulva and stomach are involved. (Wound and eye inflammations are primary infections with the bacillus, not infections by extension as the ones described above.)

B. *General Symptoms.*—Toxin is absorbed into the blood stream from the local lesion. The severity of the toxemia depends principally upon:

1. The virulence of the particular strain of organism.
2. The extent of the local inflammation—generally, the more extensive, the greater the toxemia.
3. The absorbing capacity of the surface involved—there is probably more absorption from the tonsils than from the larynx.
4. The presence of very small amounts of antitoxin in the body.
5. The elaboration of antitoxin as the disease progresses.

After considering the factors determining the extent, the effects of this toxemia upon the body will be briefly considered.

1. The heart and vascular muscle show degeneration causing cardiac failure and circulatory deficiency.
2. There are changes in the liver and kidneys making digestive and urinary disturbances common.
3. The peripheral nerves are injured causing paralysis of the swallowing muscles and other skeletal muscles. Injury to the vagus nerve may lead to death because of its influence on the heart.

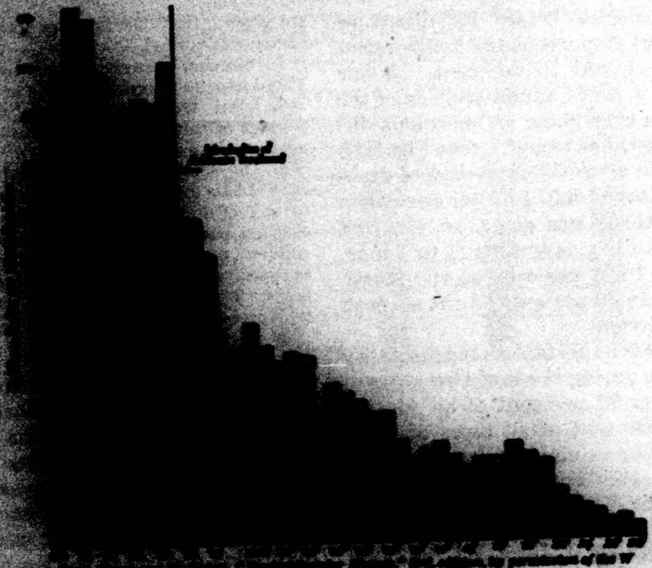
In mild or moderately severe cases there is a fever for five to six days with a pulse of 100 to 120. The white blood count is 15,000 to 25,000.

In severe cases where no antitoxin is given the fever reaches its height on the fifth to sixth day, the membrane spreads to the pillars, uvula, palate, and at times to the nasopharynx, larynx and trachea. The membrane becomes a dark, dirty gray and there is an intensely fetid odor to the breath. The discharge of mucus is profuse and there is thus obstruction to nasal respiration. The cervical glands are greatly enlarged. The temperature may be normal or subnormal and the pulse rapid and feeble. There is evidence of sepsis. Coma and death follow. This last picture especially should be eliminated by prompt diagnosis and early use of antitoxin.

As to nasal diphtheria, one type of it is mild and the other is one of the most malignant of all. The constitutional symptoms are pronounced, and the prognosis is grave both as to immediate recovery and the possibility of development of late cardiac and paralytic complications.

Diphtheria Toxin

TOXIN has been mentioned in connection with constitutional symptoms and pathology. Just what is this toxin? It is a bacterial poison of a particular kind. In general, there are two types of toxins—exotoxins, and endotoxins. Exotoxins are given off by bacteria before their death, and endotoxins are only produced after the bacteria are killed. The diphtheria bacillus gives off an exotoxin. The bacilli stay localized at the point of inflammation, but the exotoxin circulates through the blood and lymph streams. The chemical nature of this toxin is unknown. It is known that it is composed of three portions—toxin, toxone, and toxoid. The toxin proper merely combines with the antitoxin. The toxone is a late secondary product of the bacillus and causes the cardiac and paralytic complications. The toxoid part is diphtheria toxin made non-toxic by formalin and will be discussed later under prophylaxis.



[illegible] edition, by permission of the W. B. Saunders Company, publishers.

FIGURE III.—How the chances of recovery from diphtheria are increased by the early use of antitoxin

Complications and Sequelae

A. *Bronchopneumonia* is frequent. It is either an aspiration pneumonia or an extension of the inflammation from the throat.

B. *Hemorrhage* from the nose or throat sometimes occurs.

C. *Renal* albuminuria and even nephritis may occur in severe cases.

D. *Paralysis* is one of the most important sequelae and is due to action of the toxin upon the nerves. It is generally of the palate and renders swallowing difficult. The muscles of the eye may be paralysed, causing ptosis (drooping of the upper eyelid), strabismus, and loss of power of accommodation. Paralysis of the lower extremities more commonly occurs than that of the upper extremities.

E. *Cardiac failure* is a most dangerous sequel and fortunately is rare. In severe cases of cardiac complication there is a rapid action of the heart with gallop rhythm and epigastric pain. The symptoms are noted in the second to third week of the disease, although dilatation may develop as late as the sixth to seventh week. There may also be an unexpected and sudden cardiac failure in the early or late stages when the patient has not shown a marked toxemia at the onset. The cause of this is undue exertion in the early cases and the nurse must always guard against it. Late failure, of course, is due to changes in the vagus nerve.

Prognosis

THE prediction as to the result of the disease depends upon several factors:

A. *Antitoxin.*—The chief factor is prompt administration of antitoxin.

The mortality before its discovery was about 40 per cent and it now varies between 5 and 10 per cent. A few hours of delay in administration of the antitoxin may make an enormous difference in the outcome. (See Fig. III). One table gives the mortality of diphtheria cases as only 1.52 per cent when the antitoxin was given on the first day of disease, as compared to a mortality of 10.91 per cent on the fourth day and 16.56 per cent on the seventh day of disease.

B. *Age* is important as the mortality is highest during the first two years of life. Over 80 per cent of all deaths and 60 per cent of all cases of diphtheria occur in children less than five years of age. So even the postponement of the disease from the infant and pre-school period will markedly reduce the mortality of this disease. The neglected pre-school age group thus constitutes a public health problem in regard to diphtheria as well as other diseases. The toxin-antitoxin clinics are accomplishing much.

C. The *Location of the membrane* is a determining factor as the prognosis is more serious in laryngeal and nasopharyngeal cases.

D. The *toxic* character of the disease is another factor, as strains of diphtheria bacilli vary in the virulence of the toxin they produce. Great enlargement of cervical glands, gangrenous appearance of the throat, and marked prostration are symptoms of an extremely toxic condition and increase the seriousness of the prognosis.

Treatment

A. *General.*

1. Rest in bed.
2. Forbid even the slightest exertion in the more severe cases.
3. Diet: liquids are given because swallowing is painful; milk, soups, eggnogs, fruit juices, plenty of water, gruels, and ice cream are given. Soft diet is given after the temperature is normal.
4. Stimulants are given in very severe cases. The doctor may order digitalis or adrenalin.
5. Local treatment is little used now. Gargles of salt solution or Dobell's may be used for cleansing.
6. The complications are treated if they occur. Little can be done for paralysis. Antitoxin is of no value. If the swallowing muscles are paralyzed, nasal feeding of children must be done. If the extremities are paralyzed, a gentle massage of the muscles helps. Keep the patient quiet as paralysis may precede the cardiac failure.

B. *Antitoxin.*

Early administration prevents the union of the diphtheria toxone, the late secondary product of the bacillus, to the heart and nervous system. The use of antitoxin represents the greatest advance in the treatment of diphtheria. Twenty-five years ago diphtheria was one of the most dreaded diseases with a mortality of at least 30 per cent. The discovery of antitoxin by von Behring has reduced this to 5 to 10 per cent. The disease of the past is aptly described by Thurman B. Rice in his "Conquest of Disease":

When the parents of twenty-five years ago used the word "diphtheria" they spoke it in much the same tone of voice that a superstitious colored man alone in a deserted graveyard at two in the morning would speak the word "ghost" if it were possible to imagine a colored man in such a place at such a time. It was a terrible thing to contemplate the possibility that one's children might contract the disease which the doctors were unable to hold in check or successfully treat, a disease which in nearly half of the cases caused death, a horrible, choking, [illegible] death, and left with bad hearts or paralyzed throats a large percentage of those who lived.

The necessity for giving antitoxin cannot be overemphasized. As Kolmer says,

The most important point to be observed in the treatment of diphtheria is to give antitoxin at once. It may be fatal to wait for results of a culture, except perhaps in the case of the mildest infections.

From [illegible], "Bacteriology Applied to Nursing," by permission of the J. B. Lippincott Company

FIGURE IV.—The diphtheria death rate in New York State

A dose of 2,000 units may prove of utmost value in checking diphtheria and also do no harm in case the disease is not present.

Just what is diphtheria antitoxin? It is a substance built up in the blood stream of the horse by injecting repeatedly larger doses of diphtheria toxin into his blood stream. This causes antibodies against the toxin, called antitoxin, to be manufactured. After a sufficient number of them are produced, the horse serum is obtained and may be used in the treatment of diphtheria, or to produce a temporary passive immunity to the disease. The toxin secreted by the diphtheria bacilli meets the antitoxin and is neutralized by it before it has a chance to affect the nervous system. The action of antitoxin is explained in that a stronger affinity exists between diphtheria toxin and antitoxin than between body cells and toxin. Antitoxin as ordinarily produced also neutralizes the anti-phagocytic action of diphtheria bacilli and enables the polymorphonuclear leucocytes to engulf them readily.

The first dose of antitoxin will probably be large and given intramuscularly into the gluteal muscles. It is not given subcutaneously as the maximum concentration in the blood is not reached until 73 hours afterward by this method. The absorption is three to four times more rapid in the intramuscular method. Severe and late advanced cases are given antitoxin intravenously as the absorption is still more rapid by this method. Oral administration has been tried, but phenol as a preservative of the antitoxin renders it objectionable. This method is irregular and unreliable in results and is only used in individuals susceptible to horse serum or when the patient has an excessive fear of hypodermic injection. The intramuscular dose in moderate cases is as follows: infants under two years 3,000 to 5,000 units; children two to fifteen years 4,000 to 10,000 units; adults 90 pounds and over in weight 5,000 to 10,000 units. The intravenous dose is usually one-half the above amounts.

The effect of antitoxin is usually a striking improvement in the symptoms even as late as the third day of disease, although the figures given previously show the need of early

administration. The treatment is satisfactory when: (1) the local patch of exudate has ceased to spread, and (2) there is general improvement, decreased toxemia, and a stronger and more regular pulse. The temperature is not a reliable indication, as it may be subnormal.

Does antitoxin cause paralysis, heart complications, and even death? No, it does not, but many parents will tell you that it does and quote instances to prove this. Their objections might be met by the following quotation taken from Rice's book:

> The author is well acquainted with a young woman who has a useless paralysis of the throat "because she was given too much antitoxin." She was at the point of death and then began to improve within a few hours after it was given, but the muscles of her throat had already been injured beyond repair. In a sense it is quite true that without antitoxin she would not now have a paralyzed throat. Instead she would have a pretty white tombstone out under the blue sky, in a charming little green cemetery. In that sense antitoxin did it.

The possibility of serum sickness and anaphylactic shock[1] are objections voiced by others. By anaphylactic shock is meant the state of unusual or exaggerated susceptibility to a foreign protein (in this case horse serum) which sometimes follows a primary injection of such protein. This is, however, not a valid objection as Park tells us that sudden death due to this susceptibility has been known to occur in only one in 70,000 cases of antitoxin administration—and even then was probably not true anaphylactic shock but was due to a condition of asthma or status lymphaticus. Serum sickness develops in only ten per cent of persons. An urticarial rash is the frequent symptom and very rarely occurs except when a concentrated and refined antitoxin has not been used. Itching, elevation of temperature, swelling and tenderness, localized edema of the mucous membrane of the epiglottis and larynx, and puffiness of the eyelids are other symptoms. Only one person in every 10,000 develops alarming symptoms of serum sickness. Even a history of bronchial asthma or previous administration of horse serum does not preclude the giving of antitoxin. One-tenth of a cubic centimeter can be given as the initial dose and small doses repeated every twenty minutes until the whole amount has been given. Adrenalin and atropine are often used before injection or at the onset of symptoms to relieve them.

[1] Further interesting data may be found in "Serum Disease and Serum Accidents," G. M. MacKenzie, M.D., and Franklin M. Hanger, M.D., *Journal of the American Medical Association*, Jan. 25, 1930, or abstracted in the *American Journal of Nursing*, April, 1930, p. 505.

Summary of the Value of Antitoxin in the Treatment of Diphtheria

(See Fig. IV.)

1. The mortality is at least five times less under antitoxin treatment.

2. There is practically no mortality in diphtheria cases receiving antitoxin on the first day of illness.

3. There is a reduction of the mortality of laryngeal diphtheria to at least one-half.

4. Antitoxin aids the body to rid itself of the secondary products of the bacillus—toxins—which cause post-diphtheritic paralysis and heart complications.

(To be continued)

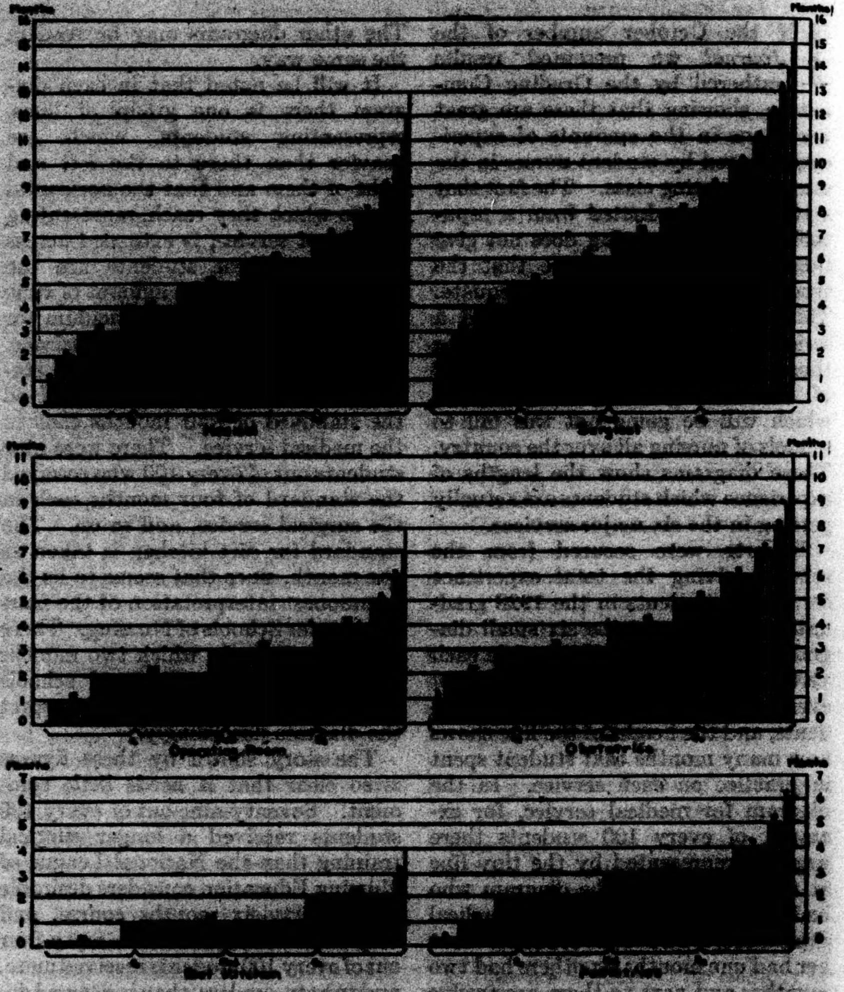
More about Student Practice

In the October number of the Journal we presented results gathered by the Grading Committee, showing that there are great variations in the amounts of experience secured by student nurses in the same graduating class. The fact that a student is graduated from a reputable school of nursing does not give the public any assurance that the student's background is adequate. This month we have reproduced a series of diagrams which are among those shortly to appear in Section 2 of the confidential grading reports which will be going out this fall to schools of nursing all over the country. These diagrams show the lengths of experience which students are actually getting in the six major services.

Reports were secured from the schools giving the total experience for [illegible] students in the 1928 graduating classes. In the six small diagrams accompanying this article each vertical line represents one out of every 100 of these graduating students, and the height of the line shows how many months that student spent in practice on each service. In the diagram for medical service, for example, of every 100 students there was one represented by the tiny line at the beginning of the diagram who had less than one month of medical experience. The two students next her had one month; six others had two months, and next to them are twelve students who had three months of medical experience during their training. The line continues until the last line at the extreme right of the medical group which shows that one student out of every 100 reported thirteen months or more of medical service. As a matter of fact, the highest record reported for medical experience was [illegible] days, or over twenty months. The other diagrams may be read in the same way.

It will be noted that in each diagram there is one group of lines, representing students, which are heavier than those to the left and right of them and that the horizontal line to which they reach, representing months of service, is extended across the page. These students are the ones who received the amount of time recommended by the Curriculum for Schools of Nursing for that service. For example, there were fifteen students out of every 100, who received the standard of four months each in the medical service. There were nine students out of every 100 who received the standard of four months each in the surgical service, and so on. The standard for diet kitchen is taken as one month, since that seems to be the commonest interpretation of the Curriculum for Schools of Nursing. There are some states in which two months is a legal requirement, and schools located in those states should interpret the diagram accordingly.

The story shown by these figures is so clear that it needs little comment. Seventy-nine out of every 100 students received a longer surgical training than the National League of Nursing Education considers desirable for a thirty-six months course, and only twelve received less. Sixty-four out of every 100 students received more, and twenty-one less, than is deemed desirable for medical experience. Fifty-five out of every 100 students received more, and thirteen received less time, than is recommended for operating room. Fifty-one received above standard, and eighteen below standard, for obstetrics. Diet kitchen, which conforms more closely to the educational recommendations of the League than any one of the other services, shows



MONTHS OF PRACTICAL EXPERIENCE

Each diagram consists of 100 vertical lines representing 100 typical students. The height of each line shows the length of the student's service. Lines in heavy black represent those students who received the amount of service recommended in the *Curriculum for Schools of Nursing*. In the medical service, for example, 15 students out of every 100 received the standard experience of 4 months; 21 students received less than the standard; and 64 students out of every hundred received more

only twenty-eight receiving more than the one-month standard and twenty-one receiving less. In pediatrics the balance shifts noticeably, with only sixteen out of a 100 receiving more than standard and forty-eight out of 100 receiving less.

In every service there was some student who was reported as not having had any experience at all. The range of experience reported for each service is as follows:

Medical, from 0 to 649 days, or over 20 months
Surgical, from 0 to 832 days, or over 27 months
Operating room, from 0 to 400 days, or over 13 months
Obstetrics, from 0 to 523 days, or over 17 months
Pediatrics, from 0 to 726 days, or over 24 months
Diet kitchen, from 0 to 248 days, or over 8 months

These figures are based upon what [illegible] reported, and since there [illegible] in the method [illegible], we cannot regard [illegible] absolutely accurate. [illegible] school, the situation [illegible] or worse than its own [illegible]. If, for example, all [illegible] to a hospital are [illegible] wards, the [illegible] would show no [illegible] the school might [illegible] giving ample [illegible]. Such a claim [illegible] be challenged by [illegible], since there is real [illegible] training in pediatrics can effectively be given under such conditions. That, however, is a separate problem, and the fact remains that some schools might claim to give a broader service than the figures they submitted indicate. There are similar difficulties all along the line. One hospital may count contagious cases as medical, and another may not. Comparisons as to length of time on medical service between these two hospitals might, therefore, be misleading. Out of the 1,131 schools which submitted usable records upon the experience of their graduates, 256 have mixed wards, and 255 private wards, in addition to or in place of, segregated services. Here again a school might feel that it was giving ample medical or pediatric service in its mixed or private wards, yet it does not receive credit for such service in a diagram of this kind.

The story seems to show, however, that the services which are most frequently cared for in these private and mixed wards are the surgical and medical, where schools are already inclined to give unduly long student assignments. There is reason to believe that were the case records for these wards carefully analysed and the length of time each student spends figured according to the actual diagnoses of patients, the result would be to increase considerably the already overstressed surgical service, to add somewhat to the medical, and not to add very greatly to obstetrics, pediatrics, communicable, psychiatric, or other important nursing specialties. Diagrams are not presented for the communicable or psychiatric services, because only a little more than one school in three provides any communicable service either directly or through affiliation, and only about one school in five provides any psychiatric service for its students.

Most of a student's time is spent, not in the classroom, but in the actual care of patients. If nursing schools are to be schools in fact, and not merely by courtesy, most of the teaching which the students receive must be given where the patients are. The amounts of time spent on different services would seem to indicate that

in all too many instances students are staying on the surgical and medical services so long that they are losing important periods of their instruction in other essential services.

If nursing education is to become education of a professional grade, it means that assignments to services must be based not upon the exigencies of hospital administration, but upon the educational needs of the students. Any one who can make this problem easier by suggesting methods for keeping track of what the students are doing, technic for simplifying the task of transferring students from one service to another, and means for increasing the amount of teaching which occurs on the ward while the student is actively on duty, will be making a fundamental contribution to higher standards in the nursing profession.

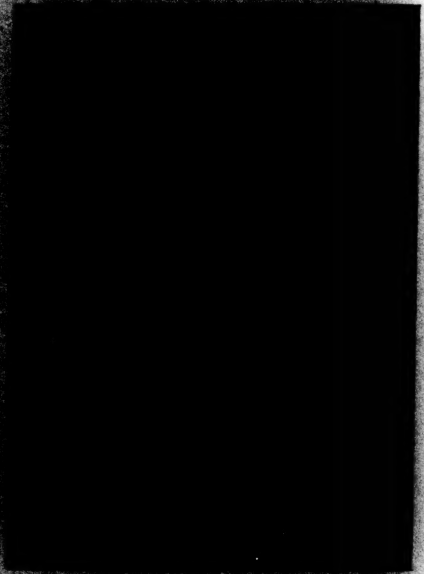
Miss Clayton's Photograph

THE National League of Nursing Education has just received permission from Miss Clayton's family to make her photographs available to the nurses to whom she meant so much.

Every State Association and State League will want one of these pictures, so as to be constantly reminded of the zeal for better care of the patient which showed through her every act. A new view, never before published, can now be secured at the following prices:

Photograph	*Mounting*	
3″ x 4″	11″ x 14″	[illegible]
5″ x 7″	7″ x 11″	[illegible]
7″ x 9½″	11″ x 14″	[illegible]
13½″ x 10½″	14″ x 20″	[illegible]

Send orders to the National League of Nursing Education, 370 Seventh Avenue, New York.



The Nursing of Tuberculous Patients

The Degree of Danger and Its Control

EDWARD R. BALDWIN, M.D.

If any observation is confirmed by experience in this country relating to the nursing in tuberculosis sanatoria, it is that proportionately more nurses break down with this disease in general hospitals than in the special institutions for tuberculosis.

Why should this fact contradict the well founded belief that tuberculous infection is the result of prolonged and intimate contact with patients?

The answer is not a simple one, possibly because so many factors enter into the problem that are difficult to estimate. The large number of graduate and pupil nurses who have been and are being admitted to the Trudeau Sanatorium for treatment offers a unique opportunity to study the subject, and this is being done. Similar studies have been made in Canada at the Manitoba Sanatorium within the past years.[1]

The same observations were made by the Canadian sanatorium physicians. [illegible] of sixty graduate and pupil nurses treated for tuberculosis, few were knowingly exposed to tuberculosis.

In general hospitals it is well known that tuberculous patients are occasionally admitted and not recognized as such until later or not at all. On the other hand, special hospitals for tuberculosis make it a routine measure to regard each patient as a potentially infectious one. The survey of the situation in nurses' training schools now being made by the Grading Committee brings out other factors pertinent in connection with the health of pupil nurses. Only a few points can be touched on in this short article. Some are admitted to training who undoubtedly have latent tuberculosis. Others come from quiet country homes into the emotional strain of city hospitals and directly from high school life with little or no previous exposure to infectious diseases. Large city hospitals usually have out-patient clinics to which many tuberculous patients go for diagnosis or treatment and where nurses serve in various capacities.

Sanatoria and hospitals for tuberculosis do not as a rule carry on training schools, but obtain their nurses from a class of graduate nurses of maturer experience or from ex-patients who have found in the sanatorium a congenial occupation with much less strain than ordinary hospital work involves. However this may be as one explanation that bears the mark of plausibility, we must first admit that there is little danger of infection in special institutions; and second, that the hygienic measures imposed upon the patients seem to be adequate to prevent danger to nurses, attendants and physicians; otherwise there would certainly be a number of well authenticated cases traceable to hospital infection. This is not only the experience of the Trudeau Sanatorium, where doubtless the proportion of open cases in the infirmaries is not far below the average in the city tuberculosis hospitals, but other American sanatoria have not seen infections. The exceptions have been in European hospitals and tuberculosis welfare stations, especially after the Great War when a number of nurses broke down. The poor diet, crowding, and

[1] Can. Med. Assn. Jour., xxii, 347–354, [illegible].

lack of soap all seem to have been factors, besides the inadequate medical and nursing care of patients.

The evidence at hand would indicate that pupil nurses need more skilled and complete examinations of the lungs (including the x-ray examination) before admission to general training and occasionally during training. The minimum age limit of eighteen may well be raised to twenty if present conditions in general hospitals cannot be made easier.

The nursing of tuberculosis as distinguished from other diseases has borne unmerited dread. If the danger of infections from influenza, pneumonia and the epidemic children's diseases were regarded in the same light, as they really should be, nurses would be reproached. All infectious diseases require intelligent and efficient measures, but not extreme procedures, to protect the nurse. What danger remains after taking reasonable precautions is, or should be, met with the true courage of a professional worker.

Hospitality in a Hospital

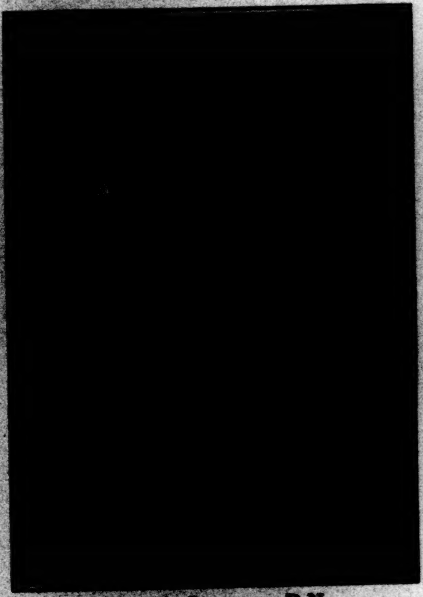
HOSPITALITY in a hospital should begin at the front door. A patient appreciates being promptly and courteously met and escorted in a friendly manner to his room—the same sort of consideration that he is accustomed to in a home. When he has reached his room, a tactful nurse can, by a little personal attention, add further to the good impression made on him at his entrance. Some years ago, while visiting in one of our larger cities, I had occasion to go into one of the leading hospitals. A prompt and friendly greeting as soon as I entered and personal attention to what I came to see and do made of me a lifelong friend. Too often the experience of the average person entering a hospital as a patient is about as follows: He enters the lobby unnoticed by anyone, and experiences a period of awkwardness, which in some amounts to real panic. Doubtfully he approaches the office and usually has to wait several minutes before he gets an opportunity to say that he is Dr. Doe's patient. As a rule he is much surprised and likewise disturbed when that statement fails to create any particular impression. It makes him feel that his physician has been negligent, or that the hospital is altogether unconcerned about his welfare. About this time comes the annoyance occasioned by what seems to him a lot of silly and unnecessary questions as to his nearest relative, his religion, et cetera. Following this [illegible] he is escorted to the elevator and the attendant told that he is to be taken to room [illegible]—very much in the same manner as that followed in the delivery of a package. There is more delay on the floor, owing to the ignorance of some nurse or the lack of a proper routine. This accumulation of unpleasant experiences culminates on arrival at the room in his being "[illegible]" or nervously upset; this patient is in all probability one who is already [illegible] over the prospect of a major surgical operation the following morning. No hospital purposely subjects a patient to this sort of annoyance, therefore I am convinced that a bad system is the cause of [illegible] all of the annoyances. I [illegible] —From "The Patient's Hospital," by John E. Boyd, M.D., *American Medical Association Bulletin*, April, 1930.

Some Specialists

Marie A. Jacobson, R.N., B.S.

MISS JACOBSON is the first nurse, as well as the first teacher, to hold the credentials of "Health Coördinator" granted by the Department of Education of California. She is a teacher-executive. Her function is to unify the school health programs by organizing and coördinating all health instruction given in the Senior High School and Junior College, Santa Ana, California, and by collecting and studying health data. She is responsible for maintaining adequate cumulative records of pupils' health history for the staff. This involves a long, slow, intricate process of curriculum analysis and reorganization. Slow and intricate, but always interesting, have been the processes by which Miss Jacobson has won her way.

After graduation from Oakland public schools and Fabiola Hospital Training School for Nurses, she was a private duty nurse for many years. Then came the World War and, being a Red Cross Reserve nurse, she entered the Army Nurse Corps. After the Armistice was signed there was an urgent call for public health nurses, and she was given a Red Cross scholarship for special training at the University of California. Many communities in the state were anxiously waiting for public health nurses, and among these was San Luis Obispo, whose county Red Cross organization had accumulated a considerable sum of money during the war period and



MARIE A. JACOBSON, R.N.

wanted a school nurse. Miss Jacobson did pioneer work in all of this county, except in one supervisorial district where a splendid piece of work in school nursing was already going on. Miss Jacobson had sixty-eight schools, and a very large territory, some of it being on the plains across two mountain grades.

Her successful demonstration of health work culminated in her being established in a smaller unit consisting of a union high school, five town schools, and nineteen country schools.

This gave opportunity for more intensive work, including several periods a week of teaching in the high school.

The two nurses in the county laid the foundation for the present health organization in that county and were directly responsible for the interest stimulated in the inauguration of the County Health Unit established by the Rockefeller Foundation and the county supervisors.

Perhaps it is her inheritance from a Danish ancestry of sea-faring adventurers that urges her on to attempt the harder tasks and to seek educational advancement, [illegible] during the summer vacations, Miss Jacobson attended public health institutes and summer sessions at the University of California. At the end of five years came the realization of her dreams—a period of study at Columbia University made possible, in part, by a substantial scholarship. The School Board gave her a two-year leave of absence, and she received her B.S. degree in 1927. Returning to her Western home, she completed, at summer sessions and by extension courses at the University of California, all the secondary subjects required for a General Secondary Credential and also the Health Coördinators Credential. Her majors are hygiene and education. She is now working toward a Master's degree in science. She completed two more years of work in San Luis Obispo and was given the title of "Health Director." But the desire to teach health education on an extensive scale was dominant, and she accepted her present position in Santa Ana where she is the health coördinator and full-time instructor in hygiene.

It is her task to see the relationships between the various required and elective subjects and public health, so that she can make the coördination clear to the other instructors. She must correlate the health service reports with the pupil's program when that pupil is physically handicapped. Miss Jacobson is one of the many ambitious educators who is endeavoring to meet the challenge for better organization and administration of health education. She is teaching about 500 girls in the high school and three "two-unit" courses in the Junior College at Santa Ana.

The philosophy evolved from private duty experience, observation of adult health behavior, and contact with teachers and pupils in school and out leads her to the belief that the secondary school is the logical place for a well organized course in health education. The pupils at this period of growth and development are interested in scientific health material. They are inquisitive and can do rational thinking on public health problems. Coördination of health with other subjects in the curriculum is most desirable but is not, in itself, going to meet the need for adequate instruction in health education. Our secondary schools need a high type program in this branch of applied science which will meet the same standards as all the other subjects. As for teachers of hygiene—here is a challenge to our nurses who are inspired to venture into a fascinating field in education and, says Miss Jacobson,

Mature nurses can benefit from college education, for they have experience and judgment. They know what they want to meet their needs and usually have definite objectives in going to college. The desire to study is always with some of us, and it leads us out into different fields of education where experiences are often hard or discouraging, but there are great satisfactions which come through contact with great minds and competition with keener students than ourselves.

Editorials

Tuberculosis among Nurses

"I AM firmly convinced that nursing is a far more hazardous occupation than it should be," says Dr. Myers in his startling article on "The Prevention of Tuberculosis among Nurses." The picture Dr. Myers paints of existing conditions is admittedly discouraging. It is corroborated by the article, "Tuberculosis in Nurses," by Dr. E. L. Ross, of the Manitoba Sanatorium, the conclusions of which are quoted and which appeared in the *Canadian Nurse* for June. It is corroborated to some extent by the observation of nurses themselves, who have become anxious over the high incidence of tuberculosis among young nurses.

Dr. Myers is no "calamity howler." He is a scientist who consistently and persistently studies and checks results. Characteristically, he has written, not on "Tuberculosis among Nurses," but on "The *Prevention* of Tuberculosis among Nurses." The program of prevention outlined is not a simple one to follow. It involves, in common with so many nursing activities, the intelligent active participation of many people. Nurses have long known that general hospitals shelter far more cases of tuberculosis than they like to admit. These cases do not show up clearly in the hospital records because, like the cases cited in Dr. Myers' article, the tuberculosis so often is unrecognized for the time being, because of the acute nature of some supervening condition such as an inflamed appendix. Nurses are powerless in the matter of diagnosis and treatment. They are far from powerless in the matter of nursing technic, and it is this that has to do with their own welfare. A more thorough knowledge and more general application of the principles of medical asepsis is clearly indicated. Nurses themselves can help to make nursing a less hazardous occupation, for it is not necessary to wait for a diagnosis before instituting precaution technic.

Schools of nursing are taking the matter of health examinations more seriously than ever before, for they have been increasingly aware that they were dealing with what Jessamine S. Whitney, statistician for the National Tuberculosis Association, calls "the neglected age," the age group from fifteen to twenty-four which, despite the efforts of health agencies, shows the least decline in incidence of tuberculosis and of heart disease of all age groups up to sixty-five. The data compiled by the Grading Committee and published in the *Journal* for January of this year has stimulated yet further effort. Dr. Myers' paper will surely supply stimuli for further action. Schools which require a complete physical examination, including x-ray studies of the chest, made under their own direction before the student is admitted, are following the best procedure known today. By accepting Dr. Myers' suggestions they will have the distinction of setting the standards of tomorrow.

Nurses are not cowards. They often have chosen dangerous paths in time of war and disaster. They

will continue to choose them, when necessary, in time of peace. They will continue to nurse patients suffering from tuberculosis. They must face the facts and intelligently assume their part of the program of prevention so clearly outlined. Much self-sacrifice is expected of nurses. It is gladly given, but it is inhuman and uneconomic to expect sacrifice of health from preventable disease. We are wholly in agreement with Dr. Baldwin when he says, "What danger remains after taking reasonable precautions is, or should be, met with the true courage of the professional worker." General hospitals and schools of nursing must assume a greater responsibility for the health of their personnel than they have yet done. It is pertinent to add that better teaching of the whole subject of tuberculosis in schools of nursing, impressive teaching of early signs and symptoms, might save many a graduate from the disaster of neglecting early symptoms or, dare we say it, the equal disaster of seeking medical advice from physicians unskilled in the diagnosis of tuberculosis.

Tuberculosis Nursing

"IT must be a lovely sort of feeling to know that one has helped to restore life to another. It must be close to the feeling the Nazarene had at many times," writes the author of "Sunrise." Lovely indeed, in the most delicately luminous sense of that often misused word. Crucial situations are apt to be immediately and definitely rewarding. All surgical nurses rejoice in the knowledge that many of their patients agree with this author when she says, "Without skilful, scientific nursing I could not have borne the horrible weeks after the man's skill had done its best for me. Without the friendliness and understanding and loving care of the 'Noble Sisterhood' I could never have had my sunrise." The non-spectacular cases, for whom the "sunrise" comes more slowly, are another matter. Prolonged periods of treatment and uneventful days call for a type of understanding care that is all too rare. Miss Kalshaw wisely begins her article on nursing care by emphasizing the need for a genuine understanding of the psychology of patients with active tuberculosis. This is tantamount to saying that only intelligent, educated nurses may be expected to give adequate care.

The English novel *Sanatorium*, concerned wholly with the mental life of one patient, most vividly reminds us how infinitely remote nurses may seem to those whose need of sympathetic understanding is devastatingly poignant. *Sanatorium* comes opportunely. The facts about tuberculosis among nurses should cause no faltering in the task the profession has set itself of year by year providing better nursing service for patients with tuberculosis.

Julius Rosenwald Foundation Aids Hourly Nursing

THE Hourly Nursing Service of Chicago, sponsored by the Joint Committee on Hourly Nursing, has received from the Julius Rosenwald Foundation financial assistance that will cover all of the promotional expenses and salary of [illegible]. [illegible] assumed the position as Executive Director on January 1, [illegible]. This Service was [illegible] by the Joint Committee representing the Central Council for Nursing Education and the First District, Illinois State Nurses' Association, in order to bring the best nursing service within the reach of people of modest means and also to furnish nursing by appointment where full-time nursing is not needed.

A Study of the Curricula of Schools of Nursing in One State

SISTER MARY ATHANASIA BRUNE, R.N.

[*The study from which these excerpts and diagrams were taken was done as part of the work for the degree of Master of Arts in Loyola University. It corresponds so exactly with the data on practical experience provided by the reports to the Grading Committee and published in the October* Journal *that it has seemed valuable to include certain extracts for comparison by those responsible for schools of nursing. We wish that space permitted the publication of the entire study.*—EDITOR.]

NURSING education in common with other types of education is influenced by many factors and conditions. Among these influencing factors and conditions one might include the cost of nursing education, the financial relation of the school with the hospital, the faculty of the school, the curriculum, the student body, the teaching field including range, variety, and character of services, and the conditions of life and work for students. The reports of investigations made in the field of nursing and nursing education all point to the disparity of standards as one of the outstanding weaknesses of the present system, and the need of definite standards by which schools of nursing can be graded and classified. In grading the schools of nursing these investigations have taken into consideration practically all factors and phases, but the writer's study has been limited to one factor, namely, the curriculum, the specified course of study.

The disparity of standards existing in the various schools of nursing in different parts of the country is brought out in the Biennial Survey of Education.

Since the curriculum is one important factor, the problem in the writer's investigation was to make a comparative study of the existing curricula of schools of nursing, limiting it to a study of the accredited schools of nursing in one state.

A school of nursing is an institution, usually in connection with a hospital, which serves as a laboratory, in which specific preparation for the profession of nursing is given. An accredited school of nursing is one that meets certain minimum requirements laid down by State Examining Boards.

By the term curricula is meant[1] the theoretical instruction, hospital practice being excluded.

In this study an attempt has been made to find out (1) how much, if any, the disparity of standards manifests itself in the curricula of the various schools of nursing in the

[1] [In the present study.—EDITOR.]

state; (2) what the standing of the individual school is on the basis of curricular comparison.

In studying the curricula of the schools of nursing answers to the following questions were sought:

I. 1. What subjects do the curricula of schools of nursing contain?
2. How much time is devoted to theoretical instruction?
3. What variations are there (a) in subjects included in the curricula of the different schools of nursing; (b) in the amount of time devoted to the various subjects by these schools?

II. How do these schools of nursing compare, on the basis of curricula, with selected standards?

The data presented in this study were compiled by the writer from the files of a State Board of Nurse Examiners. A school of nursing desiring to be accredited must annually "submit authentic information relative to hospital management, the course of study and practice, the faculty of the school. . . ." From the information submitted by the schools of nursing for the year 1928, the data presented were taken.

As bases for curricular comparisons the following standards were selected:

1. The minimum legal requirement, designated in this study the State Minimum (SM).
2. The Revised Curriculum prepared by the Committee on Education of the National League of Nursing Education, in this study called the League Curriculum (L).
3. A university average (UA).
4. The average for the state, herein termed the State Average (SA).

In accordance with legislation the State Board of Nurse Examiners has prescribed "The Content of Minimum Theoretical Course." The total amount of time devoted to all subjects in this course is 541 hours.

The Board presents the requirements "as a standard by which to measure growth," and expresses satisfaction that many schools exceed the curriculum requirement. Individual schools are not expected to follow it blindly, but may interpret it to meet their own needs and opportunities. The Board expressly states that "the requirements in every case represent the minimum a school may maintain and be considered doing acceptable work." This minimum legal requirement has been used as one standard as a basis for comparison in this study, and has been called the State Minimum (SM).

As a second standard as a basis for comparison the revised *Curriculum* of the National League of Nursing Education, published in 1927, was used. This curriculum was prepared by the Committee on Education, made up of nurses, all members of the National League of Nursing Education. The Committee was aided in this work by twenty-two subcommittees, composed of nurses from all parts of the country, representing all branches of nursing work. The preparation of the outlines for the various subjects was entrusted to these subcommittees composed of nurses interested in and familiar with the needs in the respective fields. The separate outlines were published in the *American Journal of Nursing*, reprints were made and distributed in order to get helpful criticisms and suggestions before publishing in book form. The curriculum, according to the Committee,

> is not a model, nor is it a minimum curriculum such as the various states require as a basis for registration. Neither is it a required standard of the League. . . . It has been agreed upon as a reasonable working basis for the higher grade of American nursing schools. . . . It is not expected or intended that any school should follow such a program of study slavishly. It is hoped that those responsible for schools of nursing will use it as a stimulus to their own thinking, pull their standard up

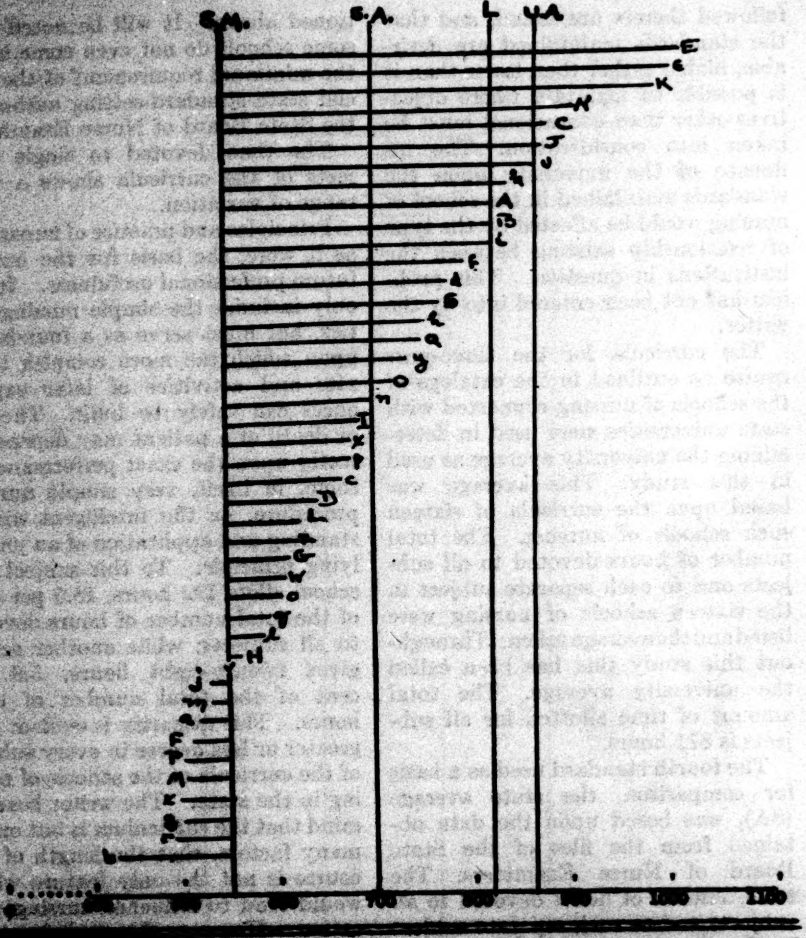


Diagram I.—Total number of hours devoted to all subjects compared with selected standards: State Minimum — SM; League Curriculum — L; University Average — UA; State Average — SA).

to its best recommendations, adapt the Curriculum to meet their own needs and conditions, and that they will improve on it wherever possible.

The total number of hours devoted to all subjects in the Curriculum is [illegible]. This does not include the recommended supplementary subjects; namely, elements of social science, occupational therapy and recreation, elements of sanitary science, and physiotherapy.

A university average was used as a third standard as a basis for comparison. A university is an institution founded and equipped for educational purposes. It has, therefore, been assumed that the educational policies

followed therein are sound, and that the standards maintained are desirable, higher rather than lower than is is possible to maintain where objectives other than educational must be taken into consideration. The influence of the university upon the standards maintained in the school of nursing would be affected by the type of relationship existing between the institutions in question. This problem has not been entered into by the writer.

The curricula for the three-year course as outlined in the catalogs of the schools of nursing connected with state universities were used in determining the university average as used in this study. This average was based upon the curricula of sixteen such schools of nursing. The total number of hours devoted to all subjects and to each separate subject in the sixteen schools of nursing were listed and the average taken. Throughout this study this has been called the university average. The total amount of time allotted for all subjects is 871 hours.

The fourth standard used as a basis for comparison, the state average (SA), was based upon the data obtained from the files of the State Board of Nurse Examiners. The total number of hours devoted to all subjects and to each separate subject in all schools was listed and the average taken. The total amount of time devoted to all subjects in this (hypothetical) school of nursing in the state is 725 hours. It was assumed that the state average would show the general tendency of schools of nursing in regard to nursing education from the standpoint of curricula.

The amount of time devoted to the various subjects, in the schools of the state, is compared in the diagram on page 1417 with the four standards mentioned above. It will be noted that some schools do not even come up to the minimum requirement of the official state standard-setting authority, the State Board of Nurse Examiners.

The time devoted to single subjects of the curricula shows a wide range of variation.

Principles and practice of nursing is, as it were, the basis for the nurse's future professional usefulness. It not only includes the simple nursing duties, but must serve as a foundation upon which the more complex technics and activities of later experiences can safely be built. The life or death of a patient may depend directly upon the exact performance of some, in itself, very simple nursing procedure, or the intelligent understanding and application of an underlying principle. To this subject one school allots 192 hours, 18.5 per cent of the total number of hours devoted to all subjects, while another school gives twenty-eight hours, 5.6 per cent of the total number of class hours. This disparity is evident to a greater or less degree in every subject of the curricula of the schools of nursing in the state. The writer bears in mind that the curriculum is but one of many factors, that the length of the course is not the only feature which would tend to influence nursing education. However, this study has been limited to an investigation of the existing curricula. Further study of factors and conditions involved in curricular variations in schools of nursing is indicated.

The disparity of standards existing in schools of nursing pointed out in reports of investigations as one of the outstanding weaknesses of the present system of nursing education manifests itself, to a certain extent, in subjects included in the curricula and in the amount of time allotted both to all

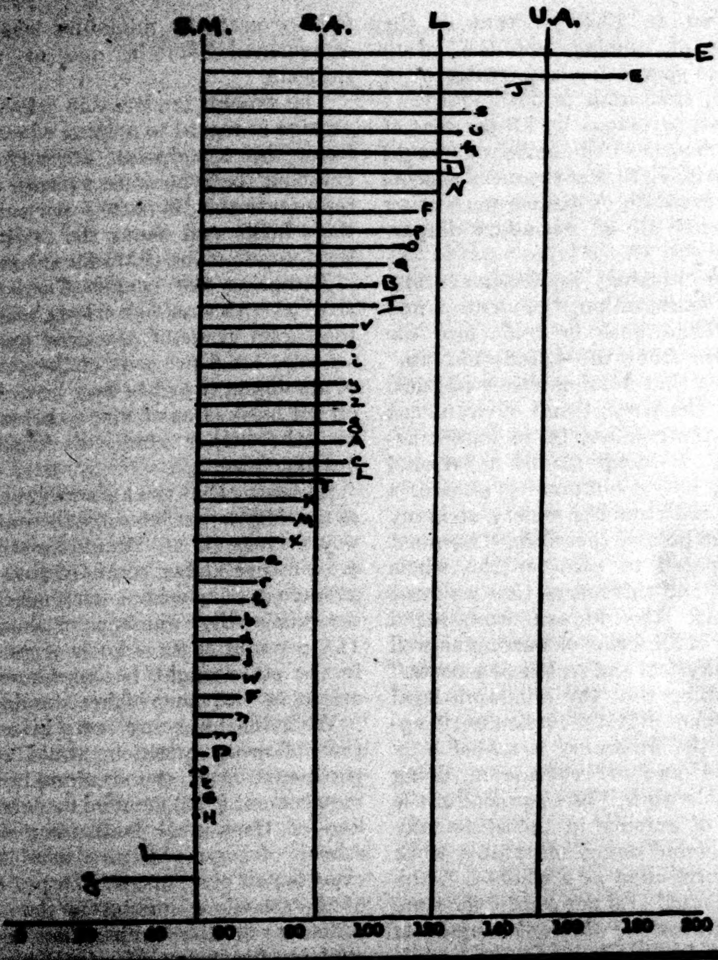


Diagram 31.—Number of hours devoted to principles and practice of nursing in 43 schools compared with selected standards. (State Minimum—SM; League curriculum—L; University Average—UA; State Average—SA).

subjects in each school, and to the various subjects in the different schools of nursing in the state.

The data presented in this study show that variation in subjects included in the curricula is evident mainly in the group of subjects listed as concerning different forms of disease, prevention and treatment of disease, and social and professional subjects.

Psychology and modern social conditions and health movements are omitted from the curricula more often than other subjects, these being included in 83.7 per cent, and survey of nursing field and related professional

[illegible]

problems, in 90.7 per cent of the schools of nursing. Of the group listed as prevention and treatment of disease, sanitation is omitted by 14 per cent, pathology by 2.3 per cent of the schools. The omission would seem to indicate that the social aspects and prevention of disease were being considered as of secondary importance.

Since nursing is fundamentally health conservation, "prevention and care should both be built into the structure from the foundation up." The idea that nursing means physical care of the patient and environment and nothing more, is no longer accepted. It is not merely a personal service, but a community service, a service that touches society at many different points, therefore, "we must be prepared to care for the whole patient, and this means that we must emphasize the human and social aspects of all forms of nursing as well as the physical and technical aspects."

Assuming that the minimum legal requirement (SM) for curriculum "represents the minimum a school may maintain and be considered doing acceptable work," 74.4 per cent of the schools of nursing in the state may be considered doing acceptable work if the curriculum as a whole is taken into account, 11.6 per cent if the time allotment for the different subjects is considered.

Thirty-eight schools, 88.4 per cent, fail to meet the minimum legal requirement (SM) in one or more subjects.

The general tendency in schools of nursing in regard to nursing education from the standpoint of curricula, granting that the state average (SA) represents this, is in 39.5 per cent of the schools well above the minimum legal requirement (SM) for the state.

Accepting the League *Curriculum* (L) "as a reasonable working basis for the higher grade of American nursing schools," 18.6 per cent of the schools of nursing in the state may be classed, on the basis of curricula, as belonging to "the higher grade of American nursing schools."

Assuming that the university school of nursing, represented by the university average (UA), "would be able to set a rather higher standard than the average nursing school, particularly in extending the number of hours," 11.6 per cent of the schools of nursing in the state might be considered as attaining "a rather higher standard."

With the foregoing facts in mind, the following question would seem pertinent: Does the minimum legal requirement (SM) demand more in the line of theoretical instruction than schools of nursing may reasonably be expected to give, or are 25.6 per cent of the schools of nursing in the state deficient in the preparation given students for their professional careers as nurses?

Approaches to Mental Hygiene[1]

LOUIS A. SCHWARTZ, M.D.

THERE has been increasing interest and impetus given to the study of mental hygiene within the past few years especially. This increasing interest exists not only in agencies handling the problems of children, but is also found in the fields of law, industry, theology, et cetera. It is significant that some of the legal profession and judiciary not only request psychiatric examinations for the problems of juvenile delinquency but also desire psychiatric examination of the adult offenders. Formerly, the crime itself was the major interest. The tendency at the present turns to the belief that the criminal should be the one to be studied. The question of mental health in childhood is concerning parents more and more. It is interesting to note that we require long courses of education for professions such as nursing, teaching, social work, and yet little consideration is given to the most important occupation of all; namely, parenthood. There are many practical problems with which parents are faced today which probably were not thought of a generation back. The present home and family situations have changed considerably. The past two generations had a closely united family group, larger families, and individuals married at a younger age. With the increasing stress of modern life, changes in the economic standard and disintegration of the home, more difficulties are encountered in the parent-child relationship.

Psychology has become a valuable adjunct in the development of mental hygiene. Especially has it made an advance in meeting industrial difficulties, particularly those for the determination of vocational fitness. Acquiring employees on the basis of proper adjustment to a satisfying position is a saving to the employer. The individual who is not suited to his work becomes discouraged and discontented so that he does not turn out work to the maximum of his ability. The medical profession has become interested, but possibly not as much as it might, in the advantages which mental hygiene has to offer. It is a well known fact that 60 per cent of the cases seen by the cardiologist are psychogenic in origin and have no organic basis. Many of the gastro-intestinal disorders seen by the practitioner are on an emotional basis. The medical profession has been somewhat lax in treating the emotional problems of the patient—a study which often requires painstaking time and effort. It is notoriously true that the pink pills of Dr. A. work better than the same pills given by Dr. B. Older family practitioners often are in a better position to render mental hygiene service because of their intimate knowledge of the patient over a long period. The importance of studying the emotions in relation to physiologic activities is significant. Dr. Crile has made the statement that when the stock market goes down, the blood sugars go up. However, most of the progress in mental hygiene in the past ten years has been in the field of agencies caring for children. These include the study of the problems of delinquency, dependency, child welfare, child placement, and others.

[1] Read at the convention of the Michigan [illegible] Association, May, 1930.

[illegible]

The mental hygiene movement is divided into three parts: first, the study of psychotic and feeble-minded individuals; second, the problems of child guidance and habit-training clinics; and third, the mental state and preventive aspects of the ordinary rank and file of individuals. What, then, is the philosophy upon which the present tendency in mental hygiene has been based? The major premise upon which we operate rests on the belief that the responses of children and the reactions of the child to his environment give the clues to and are the predecessors of the development of his personality and later adult reactions. According to Dr. William A. White, "It is because the child is plastic, capable within limitations of being moulded by circumstances, that childhood is the most important period of life and the golden period for mental hygiene." It is between the ages of two and six years that habit patterns and attitudes toward the environment are developed, and these represent the soil in which the later emotional reactions are sowed because children are most suggestible, and by the utilization of their desire for approbation, adjustments can be brought about. The pattern of early home life is carried into adulthood.

In the preschool group attitudes develop early and a group experience modifies conduct. The early relationship with the parents and the siblings determine the later reactions. The fabrics are woven by the parental attitude. It is important to determine how much personal satisfaction the child gets from his parents and vice versa. There are two types of parents: one who feels that children are born into the world to satisfy parental needs, and another who believes that they live solely for their children. Both extremes produce difficulties.

It is important to realize the parental reactions in their bearing upon the behavior problems of children. The parents are products of their own parental reactions. How can we build up a feeling value to estimate the reactions of a child? In the first place the parent must have appreciation of how the child regards him. It is advisable to determine the question of rivalry and displacement of affection in the family group especially by younger brothers and sisters. There are two major concepts to be mentioned; first, each new experience must be utilized to aid the child in growing up and becoming more mature, as well as to maintain an air of adequacy, dependability and self-sufficiency; and second, the experience must have a satisfying value for the child. In other words, the pleasure reaction must outweigh that of pain. The problem of over-dependency should be investigated. We should determine the child's reaction to punishment, the question of dependent parents and the problem of broken homes. There are reactions in parents which produce behavior problems. The parent may identify himself with the child. If pride and pleasure are produced the reaction may not be abnormal. However, if accentuated this may lead to a prolonged fixation of the parent on the child or vice versa. Over-solicitude may lead to a rejection of the child by the other parent, who may be jealous and dissatisfied. Sometimes when there are two children in a family the younger may resemble the father and may be rejected by the mother, who, in turn, does not love the father any more. Over-solicitude may be brought about by the fact that the child may be the last of a family of children. It may be the result of over-compensation for a feeling of guilt—because the child was unwanted. The

[illegible] to over-compensate by [illegible] protection and infantilization of the child. Again there is the problem of repression. We may have a child with too much of the so-called "[illegible]," resulting in conflicts with the environment, although both expression and repression are normal within certain limits.

Realizing, then, that the steps towards mental hygiene are through a study of the problems of children, what divergent approaches can be used synchronously to arrive at a complete understanding of the child and his expressions of conduct? We feel that the integration of four fields, namely, the sociologic, the psychologic, the physical, and the psychiatric, are often used in arriving at these conclusions. It is on the basis of the overlapping of these four fields, or, in other words, the formation of a unit of the child guidance clinics, that the foundation of child guidance rests. What resources in a community can be called upon and be organised in handling the situation? We can describe two main types of community organisations which can be utilised. The first group may be classified as the unorganised type in distinction to the organised or teamed type, in which an actual group of social worker, psychologist, physician and psychiatrist are coordinated. Among the unorganised group we should think first of the one dealing with parent education. This in its wider aspects, involves the understanding by the individual of his own problems first. Child guidance, then, necessarily involves parent guidance, accomplished by means of study groups, distribution of literature dealing with mental hygiene and discussion groups led by persons acquainted with this approach. However, this course is fraught with danger as often the parent is the source of the difficulty. By emphasizing the study of his child, his own problems are neglected. Child-caring agencies and the family case-worker can often do much in bringing about a satisfactory family relationship. Security in the home, opportunities for development, a chance to have companionship of his own age, good health, absence of congenital and organic defects, a recognition of his part in the family group, are the important factors in the acquirement of a soundly integrated personality. After the satisfying state of infancy has been passed, the child then turns to others in the environment, and gradually becomes emancipated from his parents. This process of growing-up should be encouraged by the parents. The child should learn to do things for himself. He should receive the proper amount of affection from his parents. For example, if deprived of affection, the child may turn into himself to make up this deprivation, thus resulting in introversion. Those parents who have been disconcerted about the health of their offspring, due possibly to the fact that the child may have been critically ill, often develop morbidly anxious children by over-emphasis on simple bodily complaints. A child does not want to give up his dependency, and many of our infantile adults who cannot assume responsibility find the basis for their difficulty by carrying their dependent rôle on from childhood. Therefore, it is a problem of mental hygiene to aid children in growing up emotionally. This can be brought about in a situation whereby a child may have an opportunity of coming into contact with others of his own age. He should be allowed to enjoy the normal, inherent curiosity which he possesses, to experiment with his environment. Often nursery schools are of value in

[illegible]

bringing this about. The emphasis should likewise be upon habit training in this younger group by mothers and nurses handling children directly.

A thorough social examination or history by the psychiatric social worker is usually an important part of the total examination. It would seem essential in all children's cases, and probably desirable in a large number of adult ones, that the "social history serve to round out the picture of the patient secured directly from him, to reveal him as he appears to others, and to delineate the emotional attitudes towards him." It often furnishes a description of experiences of his life even though he is ignorant of their significance. It is also a great help, and in many instances essential, in the evaluation of plans for treatment. If the plan for treatment is worked out in terms of adjustment of emotional relationship, it is particularly necessary for all intensive treatment cases that there be a social examination. This should give a picture of the emotional factors involved. In the very discussion of problems and the revelation of attitudes, treatment is beginning. Nurses in contact with patients are in a most valuable position to render this service to the psychiatrist. Experience shows that there is a sound basis for the formulation of a well rounded treatment plan, when physical and psychologic examinations are made part of the total study. A brief psychological examination made by a trained psychologist is essential in all children's cases. In many cases this should include an evaluation of the child's school achievement through educational tests, and of his special capacities for various forms of manual material. The physical examination should give special attention to emotional reactions to physical conditions and make-up. In a psychiatric examination there is presented a picture from the patient's angle.

The patient's emotional attitudes towards himself and his environment are brought out in this examination. It should offer an opportunity for evaluating the degree of maturity which he has achieved, and his potentialities for adjustment, as well as a formulation of his problem and its causative factors.

It is essential that treatment should be directed to an understanding of the total personality of the individual, into which the picture of his first difficulties is fitted. This understanding is progressively developing throughout the case and is coupled with the clear evaluation of causal factors. Treatment should be a dynamic plan process. Treatment involves in most instances not only help to the patient in working out his emotional problems, but also help to those in close contact with him, in order to bring about a change in their attitude toward the patient. It is frequently necessary to help them to adjust their own difficulties. In children's cases particularly the focus of treatment may need to be on the marital problems of the parents, which is rather primary among the causal factors. Too often, instead of attempts to get at the roots of a maladjustment, there has been substituted the routine use of some single tool of treatment, such as occupational or recreational therapy, or even medication, with failure to relate them to a central plan and to individualize their application.

Child research in Dr. Gesell's clinic has brought out many interesting phenomena of behavior. By research we mean the organized inquiry into problems, rather than a study of an occasional isolated specimen. Every individual who lives acquires skill but this skill is largely incidental and

[illegible]. When we do research we [illegible] a certain machinery to get [illegible] knowledge. Many regard [illegible] process as a result of the [illegible] discoveries made by sci[illegible], therefore, comes from [illegible]. Progress has brought about [illegible], yet the steps [illegible] very simple, due to the or[illegible] and systematizing of facts. [illegible] Hoover made the statement that the [illegible] of Thomas Edison's work was largely due to the fact that his problems were attacked in a systematic manner. Twenty to sixty years ago there was an era of isolated study in child behavior. The work at the time was largely concerned with biographies of children, although there were [illegible] studies of single children made. What does research do? It brings into relation all the associated phenomena so that we can make a prediction on the basis of the relation of the various factors. Information regarding the mental growth of the child has been found by research. At twelve months we find that the infant usually stands with support. He walks with help and shows a preference for one hand in reaching. In language he comprehends simple verbal communications. He says four words. In social behavior he coöperates while he is being dressed and holds his cup. At eighteen months he walks alone, climbs stairs and throws a ball into a box. In language he says five or more words, points to his nose, eyes, and hair, says "Hello," "thank you," or their equivalents. In his personal social behavior he uses a spoon without much spilling. At two years, in his motor characteristics, he can [illegible] his kiddy-car around a chair [illegible]. In his language he uses simple sentences and phrases. He names familiar objects, such as key, penny, and watch. He listens to stories with pictures and tells experiences. At three years he builds towers of more than four blocks, draws a circle from copy, discriminates longer and shorter lines. At four years he draws from copy, uses descriptive words with pictures, buttons his clothes, goes on errands outside of the house, washes himself, and brushes his teeth. At five years he draws a triangle, defines words by use, speaks with noninfantile articulation. He can also draw recognizable men and trees. He laces his shoes, puts on his coat and hat alone, names four colors and tells his age.

It is well to keep in the forefront of attention, the wide variation between babies' development in order that we may avoid forcing children when they fail to come up to preconceived standards. On the other hand we also know so little of normal mental growth that we do not expect enough of them. The wise procedure is to furnish a simple, free environment where the baby may have ample opportunity of obtaining what his developing impulses and needs tell him to. There should be relatively little need of intervention by adults if the child's needs are really met. There are differences in the quality as well as in the quantity of children's achievements. It is of importance that persons responsible for training children should recognize the individual differences between them. Early recognition in ability or capacity along special lines may greatly enhance the child's chances of success. There is often a discrepancy between the mental and physical development of the child. To judge by age, by size, or by appearance, is likely to have disastrous effects. This may be very unfair or harmful. Capacity for ready emotional adjustment is of great importance. Some children fail in the

[illegible]

formal education to which they are subjected. The right education gives children confidence and experience in those lines where ability was discovered. The successful individual is not necessarily intelligent, but he is a person whose emotions are well expressed, who has sound judgment, and who can adjust to new demands with a steady effort. Very slight native differences are often exaggerated by environment. One child in the family may show ease and adaptation in social situations, while another is shy, awkward, and easily confused. The personalities of the two may or may not have been very similar at birth, but the older child might have been much alone with his parents or have seen few visitors in his first years. The younger child, owing to changed circumstances, may have seen much social activity at home and learned to be a hailfellow at any gathering. Wherever one finds marked differences between the children of a family, we must undertake to provide opportunities which give outlet to the unique ability of each child, no matter in what different direction these abilities may lead. The short-sightedness of parents who try to develop their children along lines in which they themselves are interested or capable, is a cause for much unhappiness. Each normal individual has within him or her the possibilities of a happy adult life. The sympathetic search for, and the development of, those innate possibilities lie within the power of the parents.

The long period of human childhood enables individuals to build up numerous new and useful connections in the nervous system. When a situation arises for which the individual has no inherited response ready, he arrives by way of numerous trials and mistakes. Habits are acts in which the same stimulus has under so many circumstances brought about a certain result that it comes finally to have the power to bring it about under any condition. From the moment of the infant's birth, the baby is being acted upon by stimuli of various sorts. So familiar are we with the miracles of walking and talking that we fail to take into account the amount of learning which goes into such accomplishments. It is mainly because so much of the baby's early mental development has to do with the learning of bodily control, which we take for granted, that we do not recognize the mental activity that is going on. Much harm has resulted from ignorance of parents as to the rate of developmental growth in body and brain. Parents sometimes worry because their baby has not yet made any attempt to walk at an age when the baby next door was secure on his feet. How can we know whether children are progressing at a normal rate of development? Standards of achievement are only suggested. There may be a variation of several months either way in the child's achievement without a departure from the normal.

However, it is when the child enters school that a good number of the problems and difficulties arise. In the first place, the child is now on a competitive basis, and instead of playing an important rôle in the spotlight, as he might have in his home, he now is relegated to perhaps a more humble rôle. He may desire to gain attention by being the bad boy. His temper tantrums may represent retaliation measures to the orders of his teacher to show his thwarting in an explosive outburst. In addition, the child may have special reading or speech disabilities. Through the work of Dr. Orton, there has been increased interest in the question of

[illegible]. The speech center in [illegible] individuals is in the [illegible] of the brain, and vice versa [illegible] people. By forcing the child to use the opposite hand to which he is fitted, severe emotional conflicts are produced which may result in a sensitiveness, a feeling of inferiority because of school failures, [illegible] et cetera. Therefore, the [illegible], probably, a most important approach to the problem of mental hygiene. Teachers should be trained in the early recognition and [illegible] of these problems. It is important, likewise, that the visiting teachers should be told of these problems so that the child can be referred to a child guidance clinic, or [illegible] established to handle the problems of children. Courses in mental hygiene should be established in the normal schools, not so much in terms of treatment, but so that the teacher can learn about these conditions in their incipiency. With a mental hospital in the community, a pooling of interests might be brought about so that the courses in the early diagnosis of emotional problems can be given by some of the staff of the hospital to the normal school students, social workers, nurses, teachers, and so on. In addition to the study of children from a physical standpoint, the [illegible] should be trained in handling the emotional problems brought to him. The future of mental [illegible] rests, to a great extent, in the [illegible] of the child guidance clinic in conjunction with the public [illegible]. Such a clinic could be the [illegible] where the other agencies [illegible] and bring their problem [illegible] temper, day-dreaming, [illegible] life, undue timidity [illegible], marked fear or anxiety, [illegible], food fads, lying, stealing, [illegible] are among the problems which could be referred to the clinic.

The mental hygiene clinic should have as another one of its major interests the study of emotional problems and difficulties of adults which are not severe enough to produce hospitalization. It is in this particular field that the value of the nursing profession exists. In psychotic individuals we feel that nursing care probably offers one of the best approaches to the patient's difficulty. In the first place the nurse is in constant care of the patient and can follow his condition more closely than the physician. We rely upon nurses to obtain detailed observations which are most necessary in getting an adequate picture of the patient. The mental state often changes and it is only by continuously recorded data that we can understand the condition. Often the sympathy and understanding of a nurse can elicit information from a patient who is repressed or fearful. However, the value to mental hygiene from the nursing profession is even greater in the group of visiting nurses. Often when they are in the homes and communities they can do much in aiding individuals to adapt by assuming responsibilities regarding health and maladjustment problems. Child guidance clinics should utilize the resources of the nursing profession to aid them in carrying out their treatment plans.

There are problems peculiar to age groups, and physiologic epochs, in the field of mental hygiene as in internal medicine. Problems of infancy and childhood involving negativism, temper tantrums, enuresis, repression, et cetera, characterize the earlier difficulties. The next epoch involves the problems which come up when the child enters upon his school career—the school group. Following this

period we have the problems attendant upon adolescence which can be handled in the school system. The awakening sex impulse often produces difficulties, not in itself but because of faulty parental discipline and lack of proper understanding. Parent education and sympathetic understanding, social service supervision with proper recreational facilities, can obviate a great number of these problems. The mental hygiene clinic itself, handling the problems of adults, could be used as the training opportunity for physicians who would refer their psychoneurotic cases. Incorporated in the mental hygiene program for adults is the question of mental hygiene in the colleges. Often difficulties arise as a result of the student leaving home for the first time and getting into a new setting after breaking the home ties. A mental hygiene clinic for this type could study the problems of the students in the local normal schools and universities. Of increasing importance is the question of mental hygiene in the college student body. Its aims are conservation of the student body so that the intellectually capable student may not be unnecessarily forced to withdraw. The clinic may forestall failures in cases of nervous and mental diseases which are immediate or remote. The clinic could minimize failures by reducing feelings of inadequacy and unhappiness. The approach of the mental hygiene clinic could make possible the complete use of the intellectual capacity a student possesses by widening the sphere of conscious control. The adult mental hygiene clinic could study the psychoses in their incipiency. It is only in talking out the problem and finding the motivating conflicting forces, which often have crystallized early in the prepsychotic state, that any satisfactory treatment can be given in many of the constitutional psychoses with psychotherapeutic measures.

In this discussion we have attempted to mention the scope of the field of mental hygiene which attempts to bring the individual to a degree of maturity so that he can take on the responsibilities of life, without regressive tendencies, so that he is able to face reality squarely, without using any physical symptoms or nervous breakdowns as subterfuges to excuse failures. The philosophy of mental hygiene is based on the theory that a study of the problems of children offers the best means of prevention of these difficulties. The study of mental hygiene involves the combining and overlapping of the four fields: social investigation, the approach of psychology, physical examination, and psychiatry. Not one of these four approaches is self-sufficient and can explain all of the problems. The community can meet the issue by any combination of these four forces. Since a large number of the problems are brought to light for the first time in the school, a child guidance clinic in conjunction with the school system offers many possibilities. Training of the school teachers and visiting teachers and nurses by psychiatrists in conjunction with a mental hospital seems feasible. It will be necessary however to have trained psychiatric social workers who can also aid in follow-up work of cases discharged from the mental hospital. The emphasis can be laid upon the mental hygiene clinic itself which can handle all the problems, and which can be used as a consultation service for social agencies which will bring cases. It could be used also by the juvenile court and school. We feel, however, that a complete unit set-up for a child guidance clinic offers the most oppor-

facilities both from the standpoint of organization, efficacy of educational service to social agencies and to the parent organizations in the community.

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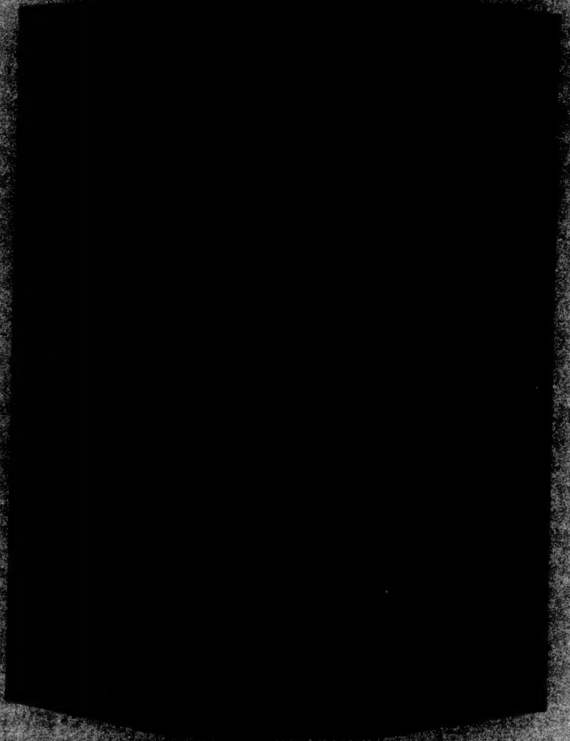
Educational Requirements for Professions in Pennsylvania

Profession	*Preliminary Education*	*Professional Education*
Dentistry	4 years high school	4-year course
	1 " college	
Chiropody	4 " high school	2-year course
Drugless Therapy	4 " high school	3-year course
	1 " college	
Medicine	4 " high school	4-year course
	2 " college	1-year internship
Nursing	1 " high school	2- and 3-year course
Optometry	4 " high school	3-year course
Osteopathy	4 " high school	4-year course
	1 " college	
Pharmacy	4 " high school	3-year course
Pharmacist		3 years' experience
Assistant Pharmacist	2 " high school	2 years' experience
Undertakers		
After January 1, 1928	1 " high school	
" " 1929	2 " " "	2 years' apprenticeship
" " 1930	3 " " "	
" " 1931	4 " " "	
Public Accountants	4 " high school	5 years' experience
or	4 " high school	3 years' experience
	4 " college	

This list is quoted in *[illegible] Points*, September, 1930, p. [illegible], from "An Educational Question," by A. C. Morgan, M.D., in the *Atlantic Medical Journal*, May, 1928.

"It is particularly interesting," says *[illegible]*, because "nurses presented a bill containing a three-year progressive educational requirement to the same Legislature that granted this requirement to undertakers." Is it possible that the legislators of Pennsylvania really believe that the care of the lifeless body requires a better trained intelligence than does that of the living, breathing, suffering individual who is dependent upon nurses for comfort, for guidance, for skillful physical care, and for understanding sympathy?

1931 League Calendar



Stairway in the Garden of the Villa Where Florence Nightingale Was Born

At the Milwaukee Convention, during a session of the Advisory Council of the National League of Nursing Education, there was considerable discussion of the sale of League calendars, and of the financial support for all the important projects which have been entrusted to the League. The outstanding preponderance of opinion was that the Calendar was the best method for raising money at present.

Every nurse who buys one can feel that she is contributing to the educational interests of her profession, just as she contributes to the work of the Red Cross by renewing her membership every Thanksgiving, or to the struggle against tuberculosis by buying Christmas seals.

Many nurses have found that these Calendars make attractive and inexpensive Christmas gifts. Many students or alumnae associations buy them at the reduced quantity rate and sell them [illegible], thus making [illegible]. The frontispiece of the calendar shows the view of the city of Florence from the villa. Send orders to the National League of Nursing Education, 370 Seventh Avenue, New York, N. Y.

Department of Red Cross Nursing

DEPARTMENT EDITOR: CLARA D. NOYES, DIRECTOR NURSING SERVICE, AMERICAN RED CROSS

The Coming Red Cross Roll Call

ARMISTICE DAY! What nurse who saw service in the World War, or who was watching and waiting in civilian hospitals and other places in this country, will ever forget November 11, 1918? Twelve years have come and gone since then. To the older nurses they have literally "flown" by as if equipped with wings. Much has happened in the field of nursing as well as in the Red Cross, in that period, yet the battles of the World War are still being fought, and will be for many years to come. Every time we make out our federal income tax, or file an exemption certificate with a hard-won coupon, we are reminded of that world-wide catastrophe.

What about the American Red Cross? It is still struggling with the problems of the ex-service man and woman, at the same time it is also engaged in constant warfare against disasters caused by fire and flood, wind and epidemics. In order to meet these enemies of mankind, the Red Cross needs a good organization, nationally and locally, and well trained personnel. Over 3,000 chapters and 10,000 or more branches serve as the "fighting arm" of the national organization, equipped and ready to marshall their forces and rush to the rescue of stricken communities. It, therefore, goes without saying that effort in [illegible] would be nullified if the national society were not able to give needed assistance. People must be fed and clothed, the sick and injured tended, houses rebuilt, crops replanted and businesses reëstablished. To do this members and money are needed.

Four million members—our last year's membership—means $2,000,000 for the support of the national program, for 50 cents out of each membership goes toward this. This is not sufficient, and reserve funds must be drawn upon. The financial report printed each year by the American Red Cross will show how this money has been used. Naturally reserve funds cannot be called upon without a consequent depletion. For example, $50,000 was immediately sent to the Dominican Republic when the news of the recent destructive hurricane reached Headquarters. Many such gifts have been made to other countries during the past year.

On November 11, the Annual Membership Roll Call is to be launched; we again call upon Red Cross nurses as well as those not enrolled to help us. More than 50,000 nurses have enrolled in the Nursing Service of the Red Cross, and if each were to renew her Red Cross membership at $1.00 each, it would mean a considerable help toward repairing the inroads made upon the resources of the organization. Local committees on Red Cross Nursing Service are being urged to assume responsibility for the Roll Call among nurses. These committees are being asked to develop a plan as the first step toward a successful Roll Call. As a second step they are urged to communicate with the nearest chapter and offer assistance, especially toward canvassing nursing

groups in hospitals, schools of nursing, alumnae, district and state nurses' associations, registries, and clubs. Roll Call literature, posters, membership buttons, blanks and informational literature can also be secured from the nearest chapter. Nurses have always responded gallantly to appeals from the Red Cross. We know they will this year, for at no time since the World War has the allegiance and support of Red Cross members and friends been more greatly needed.

Red Cross Nursing Service Loses a Good Friend

THE death of Lottie G. Welsh, on August 26, 1930, in Denver, Colorado, brings another break in the circle of Red Cross nurses who served the organization for many years, devotedly and loyally. Since 1914, Miss Welsh has been connected with the Nursing Service, first as Chairman of the Colorado State and Local Committee, resigning this office in 1917, to accept the office of Director of Nursing in the Mountain Division of the American Red Cross, one of the fourteen division offices which were created to carry the expanding work of the society during the World War. She continued in this office until the summer of 1932, when she resigned. From 1922 until April, 1930, she was an officer of either a state or local committee, finally resigning because of ill health. To the nurses of Colorado, Miss Welsh meant Red Cross. Her devotion to the ideals and standards of nursing, as well as those of the Red Cross, were an inspiration to all who were associated with her.

Red Cross Nurses of Harrisburg and the American Legion

A REQUEST to the Chapter from American Legion Post No. 27, for nursing assistance in first aid stations during the Twelfth Annual Legion Convention of the State of Pennsylvania, held in Harrisburg, August 21–23, resulted in the assignment of forty nurses to this service by the local committee on Red Cross Nursing Service.

Blanche Hunter, Secretary of the Committee, contacted by letter eighty-two enrolled nurses, asking for volunteers. That so large a number responded, giving from three to twelve hours each, speaks well for their willingness to serve a good cause. In addition, the parades of August 22–23 received similar assistance. In order to cover so long a period the committee arranged and carried through successfully a schedule of three-hour duty, the members of the Committee serving as relief nurses. The nurses gave 193 hours of volunteer service, recording 77 minor treatments.

We wish to express our deep appreciation to those nurses who volunteered and gave of their time and experience upon this occasion.

Visitors to Headquarters

AMONG the many visitors to our office from far and near, we have recently welcomed several Rockefeller "Fellows." Among these was Maria Obana, graduate of the Philippine General Hospital of Manila. After four years at Teachers College, Department of Nursing Education, where she majored in public health nursing, she received a B.S. degree this year. She is returning via Europe where she will see something of nursing activities in that country before she returns to Manila where she expects to do public health nursing.

We also welcomed Hazel Goff, formerly Director of the Red Cross School of Nursing in Sofia, Bulgaria, sponsored by the American Red Cross, but for the past three years

on the Field Staff of the Rockefeller Foundation, with special responsibility for the Balkan States. Miss Goff has a six months' leave of absence and will spend the better part of it at Teachers College, studying public health administration. Miss Goff's experience with nursing affairs in many European countries provides her with a fund of information from which her friends will exact a heavy toll.

Elspeth Marshall, Dietitian from the University College Hospital in London, accompanied by Margaret Broatch, Dietitian from St. Thomas' Hospital in London, also visited National Headquarters. The latter is a graduate of the Nightingale School of Nursing but has transferred to the field of dietetics. She is returning to the hospital and will teach dietetics in the school.

Enrollments Annulled

THE enrollments of the following Red Cross nurses have been annulled, but their appointment cards and badges have not been returned. It is to be noted that appointment cards and badges always remain the property of National Headquarters and their return is requested when enrollment is annulled: Mrs. George Wade Jenkins, *née* Florence J. Mouser; Mrs. Adolph Jobson, *née* Kathleen Hannon; Mary Agnes Joda; Mrs. Thomas Johann, *née* Mary A. McCarren; Alma Christina Johnson; Mrs. Louis N. Johnson, *née* Annie Clara Mize; Clara Harriet Johnson; Hazel Mae Johnson; Ethel B. Johnson; May B. Johnson; Mrs. Johnson, *née* Melanise Georgia Cyr; Naomi C. Johnson; Ollie M. Johnson; Ruth Adeline Johnson; Mrs. Leo Johnson, *née* Valentine M. Gontero; Ellen Elizabeth Johnson; Ethel M. Jones; Mrs. Helen Wallace Jones; Katherine Jones; Mrs. Jordan, *née* Eva Mae Ely; Mrs. Joseph, *née* Inez Mary Coulson; Mrs. Harry L. Judd, *née* Amelia M. French; Mrs. J. H. Kaufman, *née* Helen Ash; Mary M. Kay; Nellie Kay; Mrs. V. Jack Kearney, *née* Mabel Louise Bodden; Jessie Angie Keating; Mrs. Robert W. Keeton, *née* Emily Hays Alcorn; Nellie Winifred Kelly; Mrs. Annie Norton Kendall; Marie A. Kendall; Mrs. Harold Kennedy, *née* Agnes Marie Walsh; Mary Agnes Kennedy; Valetta A. Kettering; Marie Kewitz; Mrs. W. E. Kimbrough, *née* Louise Rawls; Vera Ardys Kinne; Mrs. Mary J. Klebba, *née* Deiro; Grace M. Knapp; Mrs. J. L. Lausch, *née* Christine Dorothy Erion; Mrs. Ester D. LeMans; Julia Mary Lennon; Mrs. F. E. Lensinger, *née* Dorothy M. Claus; Mrs. Lena May Levey, *née* Hosier; Marie K. Leyneck; Sarah Elizabeth Liljergren; Mrs. P. H. Lippold, *née* Elnores Lyda McKinley; Florence Adelene Loudon; Helen Sophia Luomaioki; Alta Elizabeth Lumry; Carrie Iene Lumry; Hazel Elizabeth Lutton; Emaline Lynch; Mrs. Roy Lynn, *née* Florence Goldia Birch; Mary Frances McBride; Mrs. Irene Edna McCann, *née* McCall.

To a Hospital Named Victoria

LEAVE all your sadness out beyond the door
    When here you enter, Patient, Doctor, Friend;
This is the house of victory, not grief—
    The place where pain and illness find an end.

Health here replaces incapacity.
    Suppose some ether fumes float down the hall,
Or now and then escapes a little sigh,
    A cough, a moan, a wail, or startled call—

That's only evil grumbling—departing—
    As health comes in to take his wicked place.
Walk gladly in this house: Victoria!
    Triumphant shines each convalescent face!

LOUISE MAYERS MEREDITH.

Our Contributors

The article on "Undulant Fever" by Alice C. Evans, Bacteriologist, U. S. Public Health Service, in which she presents the results of her own research, is presented with all the modesty of the true scientist. Nurses in those sections of the country where undulant fever is prevalent should be stimulated to crusade for the pasteurization of milk.

Amy H. Hiltner, B.S., is Directing Teacher at the Western Reserve University School of Nursing. Every nurse who cares for children will be interested in her fascinating article.

J. A. Myers, M.D., Ph.D., is an old friend to *Journal* readers. His paper, originally prepared for the National Organization for Public Health Nursing, contains so much of startling import for all nurses that the editor of the *Public Health Nurse* generously permits the *Journal* to publish it.

Ophelia Steward, R.N. (Johns Hopkins Hospital School of Nursing, 1910), had private duty and clinic experience before she joined the faculty of the D. Ogden Mills School of Nursing, Trudeau Sanatorium, Trudeau, New York, where she is now Superintendent of Nurses.

"Bessie" is the personal experience in the Southwest of a patient, not a nurse, who wishes to remain anonymous.

Anna S. Kelshaw, R.N. (St. Barnabas School of Nursing, Newark, New Jersey, and New York School of Philanthropy), after experience in social service and public health nursing, is now a private duty nurse, specializing in the care of the type of patients she describes.

Emma L. Stephens, R.N. (St. Joseph's Hospital, Boonville, Missouri), is at present doing private duty nursing.

S. Leslie Bell, R.N., Canadian graduate of an American school, is one of those fortunate folk privileged to visit far places.

Ruby E. Davis, R.N., is Superintendent of Nurses, Parkland Hospital, Dallas, Texas.

The article by Jean Broadhurst, Ph.D., and Theodore Hanneman, B.S., will be welcomed by the hundreds of nurses who have been Miss Broadhurst's students and by all those others who have awaited a scientific discussion of the subject she presents. Mr. Hanneman teaches bacteriology at Concordia College.

Oscar W. Bethea, M.D., is Professor of Clinical Medicine, Tulane University, New Orleans, Louisiana.

Virginia Bayer Miller, B.S., R.N. (University of Washington), is a member of the faculty of the Cook County School of Nursing.

Dr. E. R. Baldwin is Director of the Trudeau Foundation. In his forty-five years experience with tuberculosis patients he has had ripe experience in observing the nurse's relation to the care of tuberculosis and in observing nurses who have themselves been patients.

We are indebted to Mrs. George Merritt, for eleven years clerk of the school board of San Luis Obispo, California, for this month's "Sparkler." Of Miss Jackson, Mrs. Merritt says: "We were quick to catch her spirit of loyalty, of high endeavor and initiative. She has dignified her beloved profession by her simplicity and sympathetic understanding of people."

Sister Mary Alexander Evans, R.N., M.A. (Loyola University), is Instructor in the School of Nursing of St. Mary's Hospital, St. Louis, Missouri.

Dr. Louis A. Schwartz, recently of Yale, is now Director of the Clinic for Juvenile Research, Detroit, Michigan.

A Correction

Sophie Nelson, R.N., President of the N.O.P.H.N., has asked us to correct the statement made on page [illegible] of the August *Journal* [illegible] Director of the Red Cross Nursing Service [illegible] of American Red Cross Nursing.

Student Nurses' Page

Nursery School

DORIS JOHNSON

Western Reserve University School of Nursing, Cleveland, Ohio

IT was about seven-thirty by the playroom clock when the door of [illegible] Nursery School opened violently to admit two great black sparkling eyes accompanied by a pair of dancing black dimples. We might mention that the eyes and the dimples were a part of a chubby black boy about four years old, but the first thing one notices about Theodore is his wide grin. With a whoop of which only Theodore is capable, two very substantial legs carried the dimples toward the goldfish bowl, for it was evidently our hero's intention to take those unhappy pets for a walk. The student teacher in charge of the playroom came to the rescue just in time.

"Theodore, can you put your hat and coat in your locker? Then you'll be ready for your codliver oil and orange juice."

The student nurse, who was spending her first day in the nursery school, watched the proceedings rather skeptically. It was easy to see that [illegible] planned for a romp around the room, a romp made more [illegible] by the disapproval of [illegible]. And wasn't it just [illegible] teacher to speak so [illegible] of codliver oil? If she had [illegible] experience in a children's [illegible].

Apparently, however, enough of the nursery school atmosphere had penetrated Theodore's woolly head to make him realize that the mischief he contemplated just wasn't done, especially so early in the day. Rather reluctantly he walked out to his locker, which was marked inappropriately enough, as was the rest of his personal equipment, with his own individual sticker—a lamb. In a moment he was back at the pantry door, where he swallowed a teaspoonful of codliver oil without a murmur and reached eagerly for his glass of orange juice. That was soon disposed of and, at the suggestion of the teacher, he went with her into the bathroom, where he was gravely introduced to the nurse who was still trying to look as if seeing children take codliver oil as if they liked it was an everyday occurrence.

The experience helped to prepare her somewhat for the comparative ease with which she was able to accomplish the morning routine with this boy, who possessed energy enough for five. There was his temperature to take, throat, nose, and ears to inspect, teeth to be brushed, bath to be taken, fresh nursery school clothes to don; and through it all Theodore committed only the minor offences of upsetting the albolene, scrubbing the bath tub with his toothbrush, and generously splashing nurse and bathroom. By the time about eleven

others, colored and white, had gone through the same procedures with variations, it was time for breakfast. This consisted of graham crackers and milk, given in case some child had left home without breakfast that morning. Glasses of milk were dispatched in amazing numbers, and then children and student teacher went out of doors to spend an hour with the swings, see-saws, and the "jungle gym," an acrobatic apparatus with many bars placed at just the right distances for short arms and legs.

The nurse was left inside to set the little green tables for lunch, and in other ways help the director of the school, but especially to meditate upon the great difference between the children she had dealt with this morning and the poor little rickety bodies she had cared for just yesterday in the pediatrics hospital. These nursery school children were from the slums of the city, and yet they had already developed habits of health and the art of "getting along with people" that many a wealthier child might envy.

Her thoughts were interrupted by the return of the hungry children and in a few minutes, after hands and faces had been scrubbed, she found herself seated on a child's chair at the head of one of the little tables while the children sang their grace before the meal. Horrors! There was spinach for lunch. Well, she just couldn't eat it, even if it was healthful. But the children were eating their servings of the much maligned herb, and it really would be a bit embarrassing—perhaps she had better eat it. She didn't believe she had ever seen such young children with better table manners, nor any who seemed to enjoy more the foods they should eat.

When lunch was over each child rinsed his face and hands again and then was soon tucked into his nightgown and sleeping bag in one of the little beds in the big airy bedroom. While the children slept, the director and her staff discussed problems which had arisen during the morning and planned the next day's program. The students were assigned readings dealing with the purpose and work of nursery schools everywhere. Then there was some mending to do, and soon the children began to wake.

When they were dressed, a supper of fruit, cereal, and milk was ready, and again these children displayed the proverbial good appetite children in fiction always have and real ones too often lack. Then there was an hour of doing anything one liked, and about five o'clock Mary's and Frances' and Carl's mothers and fathers began to call for them.

It was a thoughtful student nurse who started back to the hospital that evening. Perhaps this nursery school movement she had heard so much about was more than a fad of the moment after all. At any rate her viewpoint had changed considerably in just one day. And if some of those methods were so successful with well children, might they not be equally successful with sick ones? They were worth trying, anyhow.

The Open Forum

The editors are not responsible for opinions expressed in this department. Letters should not exceed 300 words; anonymous letters are not considered

A Tea for Miss Thomson

On Saturday afternoon, August 23, 1930, the Oregon State Graduate Nurses' Association was hostess at a tea and reception in honor of [illegible] Thomson, recently elected President of the American Nurses' Association at its Biennial Convention in Milwaukee in June. The Program Committee of the State Association, consisting of Grace Quirk, Minnie [illegible], and Helen McCosker, Chairman, is certainly to be congratulated upon the success of this entertainment. The tea was held on the campus of the University of Oregon Medical School, on Marquam Hill, Portland. The weather was ideal and the extensive lawns were beautifully decorated with colorful umbrellas, tables, and chairs. The Seventh United States Infantry Band of Vancouver Barracks, Vancouver, Washington, played throughout the afternoon. Very enjoyable refreshments were served.

Miss Thomson is Professor of Applied Sociology and Director of Public Health Nursing in the University of Oregon. Many of her former pupils were present, and the great esteem in which Miss Thomson is held by the nurses of Oregon was clearly demonstrated. Representatives from all branches of nursing in Oregon were present in the receiving line, and many members of other clubs, of which Miss Thomson is a member, were present to greet her.

This tea will long be remembered as one of the most pleasing and enjoyable social functions in the history of the Oregon State Graduate Nurses' Association.

F. F.

, Oregon

Journal Parties

I

When we considered how we would like a [illegible] party, everyone was unanimous in [illegible], although we hardly knew [illegible] Journal [illegible]. Next [illegible] delight when we walked in and saw our classroom transformed by green-shaded lights, tables covered with green, green ferns—all to carry out the *Journal's* color.

We had a contest of fifteen questions, with prizes. While the judges were correcting the papers, the green question box was opened and we discussed such questions as: Who is Dr. George Vincent? What is the Rockefeller Foundation's objective? What is the treatment outlined for Basedow's disease? What treatment is advocated for eczema? What nurses recently went to the Orient to make a survey of nursing conditions? Whom did the French Government recently honor? When is syphilis contagious? What method was outlined for collecting a twenty-four-hour specimen of urine from a child? The above are only a few of the questions that were discussed. I read a short paper on "The Cost of Medical Care" by Miss Geister in the January *Survey*. Another student read one on the Rockefeller Foundation, which was much enjoyed.

Our alumnae were invited, and were much interested in the program. Also present were the president of the alumnae, who was presented with the guest-of-honor prize, and the wife of one of our surgeons who is a member of the Massachusetts General Hospital Alumnae. She presented the prizes, which were wrapped in green paper, looking so mysterious and quite "Journalistic." After the presentation of the prizes, a delicious sandwich lunch was served by three of the seniors, who were becomingly dressed in green aprons and green caps.

This party was such a success that we have decided to have another next month, and we are studying the March *Journal* in preparation for it, so that I am sure it will be even more interesting than this one.

Dorothy Davis

Rex Hospital Training School,
Raleigh, North Carolina

II

Since Miss Cornelison, the Field Secretary of the *American Journal of Nursing*, visited our school, the 1930 class of the Pershing Memorial Hospital in Cheyenne,

Wyoming, has planned to give a *Journal* party like the one she had read about which had been given at the Lutheran Hospital in Fort Wayne, Indiana. We talked about the party off and on all summer, and at last decided to give it, September 4, at the Y.W.C.A. Parlors.

Several evenings were spent in making the invitations, which were of green paper with white paper inside to represent the Florence Nightingale lamp, just like the little one on the front of the *Journal*. The invitations were sent to about eighty nurses who were either active or inactive in their profession, and as a result we had present at our party all varieties of nurses, institutional, private duty, public health, married nurses, as well as students. On our invitations we had written these words, "Read Your August *Journal*," and they evidently took us at the word, for it followed during the evening many of these nurses told us that they had spent several evenings in reading the *Journal*. In many cases there were ties, and this made it necessary to draw for the prize.

Some of our contests were: The Official Directory, which consisted of questions asking all about the officers, editors, etc., of the *American Journal of Nursing*, the *American Nurses' Association* and the Wyoming State Association. Another was called the [illegible] [illegible] which was a questionnaire of the articles in the August *Journal*. A [illegible] puzzle contest [illegible] much [illegible].

One of the first prizes was a one-year subscription to the *American Journal of Nursing*. Green stationery, green date book, green candy jar, green soap and perfume, and other prizes all green and white were given to the lucky prize winners. The color scheme was carried out in the table decorations and food. Green and white paper luncheon cloths and napkins were used; each napkin was tied in a roll with green ribbon. Tall green tapers held in crystal holders were on each table where four people were seated. Our [illegible] also served as a place card. It was a miniature *American Journal of Nursing* [illegible].

Our menu was: Chicken salad in green pepper shells, rolls, pickles, olives, [illegible] sherbet, green and white cookies and assorted nuts, coffee.

Our guests departed, all commenting on the lovely time they had had and asking us to promise to give them another *Journal* party next year, which we are planning to do.

MARY [illegible]

Pershing Memorial Hospital,
Cheyenne, Wyoming

Careful Selection of Students

THE new home is rapidly nearing completion. I expect to enter the new group there about the end of October. I shall only admit the one this year. We are using different methods with this class, as follows: bringing them in before admission for physicals and the following tests:

Preadmission Examination:

- Complete physical examination
- Mental tests:
  - Army group examination Alpha
  - 1. Otis self-administering tests of mental ability
- Personality tests:
  - Downey individual will-temperament test
  - A-S Reaction study

Preliminary Examination:

- Personality tests
- Individual conferences
- [illegible] tests
- Gates—[illegible] health knowledge test
- [illegible] arithmetic tests
- Dvorak general science scales
- Pribble—McCrory diagnostic tests in practical English grammar
- Otis—[illegible] test
- Monroe—Standardized silent reading test
- Inglis—Tests of English vocabulary
- Ruch—Cossmann biology test

All preliminary students will be subject to [illegible].

We have already eliminated three after the above testing. We consider this one of the best things we have yet done; it will give us a better qualified student and save expense in [illegible].

MABLE F. McCULLOUGH, R.N.

Ohio

The Convention Reports

THE articles I have read during the convention in Milwaukee, June 9–14, are [illegible] and [illegible] presented [illegible] first [illegible] the convention [illegible] [illegible] the *Journal*. It was a lovely compliment to the *Journal* I thought.

[illegible]

[illegible] the need of additional enthusiasm [illegible]. It made me see more clearly (to [illegible]) the indifference of [illegible] of nurses toward our various [illegible] and their work to improve [illegible].

[illegible] Where lies the [illegible]? Who is to blame?

C. B., R.N.

[illegible], Illinois

Questions Questioned

I [illegible]. Why does the A. N. A. [illegible] Department in the News [illegible] Questions Department in the body of the *Journal*? It seems con[illegible] an average reader. Also, [illegible]. To include them in the [illegible] adds to an already [illegible] part of the magazine. I note [illegible] Questions page in the [illegible]. If the *Journal* is the spokes[illegible] A. N. A., why in the world doesn't the A. N. A. use it in the usual way?

An Indignant Subscriber

New York

Information Requested

Will the [illegible] of alumnae associations [illegible] their schools in any way, [illegible] gifts or endowments; [illegible] programs for "mutual aid," [illegible], loan funds, sick [illegible] funds; or which have [illegible] a good attendance at [illegible] communicate with the Editor of the *Journal*, [illegible] Seventh Avenue, New York City?

[illegible] Care

The [illegible] Conference on Hospital [illegible] Committee on Con[illegible] a new edition of [illegible] of obtaining a [illegible] or homes where [illegible]. Will those hav[illegible] write to E. H. L. [illegible], 2 East [illegible] Street, New York.

[illegible] Warnings

A [illegible] to be a City [illegible]

[illegible]

The hospital will appreciate being notified if the woman attempts to make use of this diploma.

(Mrs.) Sarra H. Dateman, R.N.,
Superintendent of Nurses

New York

A man representing himself as an agent of the White Swan Uniforms is soliciting orders in Indiana, Ohio, and Michigan, under the name of Murphy, O'Hara, Calhoun, or Austin. This company has no representatives going direct to nurses.

Too Many Nurses

Nurses who are contemplating coming to Florida to work, during the winter, are advised not to come to St. Augustine, as the present supply far exceeds the demand.

Cora R. Hodges,
Secretary, District No. 11

Florida

Nurses contemplating change of residence or employment are advised to investigate conditions before coming to Dallas.

May F. Smith, *President*,
Mattie Hartfield, *Secretary*,
District 4

Texas

South Carolina State Nurses' Association, District No. 1, wishes to advise any nurses contemplating coming South for the winter, that in Charleston, at present, our local supply of nurses far exceeds our demand.

Journals Wanted

Luther Hospital, Eau Claire, Wisconsin, needs the following copies of the *Journal* to complete sets for binding: 1913, January through April; 1915, June; 1916, November, December; 1917, January, February, July.

E. Frances Upton, 1206 St. Catherine Street, West Montreal, Quebec, will pay ten cents each for the following copies of the *Journal* (Write her before sending them): 1903, June; 1904, March, June; 1906, February, April; 1907, January; 1910, June; 1912, May; 1913, September; 1916, June; 1919, June, September, December.

Jane Brown, Mt. Vernon Hospital, Mt. Vernon, N. Y., needs the following copies of the *Journal*: 1914, February, May, June, August, October and November; 1915, all except February, March and April; 1916, 1917, 1918, these three, complete years.

Miscellany

Tuberculosis in Nurses

1. Sixty nurses have been admitted to this sanatorium during the past five years. This is far beyond the proportion in which women of the Province in general, or any other class of women in the Province, have been admitted, and more than the proportion of girls of their average age also.

2. These nurses, who have come for treatment of tuberculosis, have with very few exceptions broken down during their training in general hospitals, or during the first year after that training, often while still on the staffs of general hospitals.

3. Fifty of the nurses in this series broke down during their training or within one year of graduation. This constitutes about six per cent, or one in seventeen, of the nurses in training within Manitoba during the same four-year period.

4. We consider that among the unfavorable conditions are the early age of entering upon training as nurses, the previous freedom of these girls from contact with disease, the [illegible] of them unaccustomed to hard work, the comparatively little tuberculous infection they had met and the consequent lack of immunity built up. If nurses were not allowed to enter upon training until twenty-one years of age perhaps fewer would develop tuberculosis. Hours of work are well regulated, but it is important to investigate hours of energy expenditure. Supervision should be strict and the hours of sleep adequate.

5. Nurses entering training should have complete physical examination, and well taken, well interpreted x-ray plates of the chest.

6. An unfavorable condition in all general hospitals, we consider, is the presence of patients who are under treatment on account of special diseases and many who have general chronic disease as well, which is not always fully recognized, and which may be and often is at an infective stage.

7. General hospitals would be more safe for their nurses. All patients entering general hospitals should have a thorough history taken and a complete physical examination.

Tuberculous people in general hospitals may be safely treated if known and classed as tuberculous, and if the training and experience of the nurses include the essential measures for the care of the tuberculous. But undiagnosed and "untagged" tuberculous patients are always a danger.

Nurses should receive definite and ample teaching about tuberculosis and the routine for tuberculous patients. A cough is practically always dangerous whatever the cause. Every cough should be covered. Apart from tuberculosis, much could be done to prevent the spread of other upper and lower respiratory infections. Nurses presumably are instructed about the care and proper disposal of all other discharges and excreta, but the dangers of cough and expectoration they do not know so well. A woman recently admitted from a general hospital where she had been for six weeks, under treatment for advanced tuberculosis, had never been instructed to cover her mouth while coughing.

It is very rare to have a sanatorium nurse break down with tuberculosis. Some reasons for this are: the work on the whole is less strenuous, routine and energy expenditure, apart from nursing duties, are usually of a quieter variety; all patients are known to be tuberculous and considered infective; proper precautions about cough and the disposal of expectoration and discharges are carried out. And it is also considered that by repeated small doses of tuberculous infection some immunity is established.

8. There is a special type of tuberculosis to be made out characteristic in the nurses of this series. Over one-third of them had [illegible] or [illegible]. It is [illegible] similar to the type of [illegible] in children and [illegible] the [illegible]. [illegible] Young nurses from good, careful homes have met with little infection and developed little immunity, so if they meet with infective cases, especially if resistance is lowered, [illegible] they are virtually in the position of children.

[illegible] — E. L. Ross, M.D., in the *Canadian Nurse*, June, 1930.

Abstracts

Staphylococcus Infections: J. E. Walker, M.D. Action of Bacteriophage and Chemical Disinfectants on *Staphylococcus* in Subcutaneous Infections. (*Journal of Infectious Diseases*, 1930, XLVI, 324. From an abstract in *Abstracts of Current Public Health Literature*.)

This is a brief, comparative study of the action of bacteriophage and certain chemical disinfectants, such as mercuric chloride, phenol, formaldehyde, chloramine, and tincture of iodine, U.S.P.

The test was carried out on rabbits, which were shaved and then given *four* injections on each side of the body with a mixture of the reagents in various dilutions together with 0.5 cc. of a [illegible] broth culture of *Staphylococcus aureus*. In each instance the total fluid injected was 1.0 cc. A control injection consisted of 0.5 cc. culture and 0.5 cc. sterile broth. The phage used was that of a filtered [illegible] broth culture, 1.0 cc. of which in a dilution of [illegible] would clarify (lyse) a young broth culture of *Staph. aureus*. All germicides were mixed with the broth culture for one minute before injecting the animals.

Varying dilutions of the chemical reagents were used, stronger solutions producing necrosis in 24 hours, which later on ulcerated and became covered with scabs. The control injection (culture and broth alone) caused erythema [illegible] in 24 hours, which later went on to [illegible].

[illegible] that none of the [illegible] completely [illegible] one-fourth of that [illegible] its long axis was [illegible] and the "effective ratio" [illegible] both of [illegible] one-fourth size of the [illegible]. On this basis it was determined that the effectiveness of

Mercuric chloride..............	A ratio of 10
Phenol..............	" " 2
Formaldehyde..............	" " 8
Chloramine..............	" " 4
Iodine (tincture)..............	" " 1
Bacteriophage..............	" "512

This shows most strikingly how superior phage was, and it never once even in its strongest concentration gave rise to any necrosis.

The author concludes that "bacteriophage makes a more suitable local dressing than the chemicals for staphylococcus infection."

Migraine: C. J. Barborka, M.D. Migraine: Results of Treatment by Ketogenic Diet in Fifty Cases. (*Staff Meetings of the Mayo Clinic*, July 9, 1930.)

Summary. Fifty patients who were suffering from severe typical migraine were treated with a ketogenic diet. The attacks of fourteen patients were controlled. Twenty-five patients were definitely improved. Thus thirty-nine patients were benefited by the diet. Eleven patients were not benefited and the treatment was considered a failure, although a number of the patients were not maintained in a state of ketosis.

Oral Care: Sigmund W. A. Franken, D.D.S. Oral Care of Hospital Nurses. (*Dental Cosmos*, August, 1930.)

Realizing the urgency of adequate dental care for its nurses, the Lenox Hill Hospital (New York) inaugurated a system whereby the examination and oral prophylaxis of from five to seven students per week could be provided for. . . .

The first difficulty was to find time for the student nurse to avail herself of the dental service. The most logical period was soon discovered to be between two and three o'clock in the afternoon. This is the daily visiting hour in the wards, and since little or no medical attention is required during that time, it is obvious that a nurse can be more easily spared then at any other hour of the day. The examinations and cleanings are done by a dental hygienist. . . . Inasmuch as the dentists of the Out-Patient Department staff are too busy with their regular duties to shoulder the additional burden, and the dental intern is subject to the same rule that applies to medical and surgical interns; namely, that interns are not permitted to treat hospital nurses.

The charts are similar to those used for patients . . . with divisions to mark the presence of carious teeth, teeth to be extracted,

[illegible], bridges, and condition of soft parts. After completion, the chart is sent to the superintendent of nurses, and it is at this stage that the real value of the work is felt, for she makes it a point to get in touch with every nurse who is in need of [illegible]. The [illegible] work. It is the [illegible] who [illegible] all [illegible] etc. . . . The [illegible], and [illegible]. It has not only [illegible], both [illegible] and [illegible] to the hospital, but has also been a great aid in the propaganda of oral hygiene.

Maternal Mortality: Sir Arthur Newsholme, M.D. An Instance of Exceptionally Low Maternal Mortality in London, and Some Comments on the Circumstances in Which It Has Been Secured. (*Milbank Memorial Fund Quarterly Bulletin*, July, 19[illegible].)

My attention has been drawn to the East End Maternity Hospital, Commercial Road, London, E., as an institution in which an exceptionally low rate of maternal mortality in childbirth has been experienced, and I visited this institution and made a careful examination of its records, the results of which, with some observations thereon, are embodied in the following pages.

In consideration of the conclusion that a real saving of maternal life and, with it, of much [illegible] of the [illegible] lethal period of infancy might be saved.

It may be added that in 1928 the proportion of primiparae in the experience of the hospital was [illegible] per cent of the total births, which does not support the view that multiparous births are more frequent in this charity than elsewhere.

The number of attendances at the ante-natal clinic averaged [illegible] for every mother. One-fifth of these attendances were made in the medical officer's clinic. In the same year the total breech presentations were [illegible], cephalic version being successfully performed in [illegible], and attempted unsuccessfully in 17 cases. In [illegible] other such cases the condition was not discovered before birth, and in 27 for various reasons version was not attempted. In [illegible] per cent of the total cases, forceps were applied.

The proportion of forceps cases in extern cases was 1.05 and in intern cases 4.81 per 100 patients.

The preceding analysis of the mortality experience of this institution, and a comparison of its figures with those for the whole country, for London, and for one of the two metropolitan boroughs in which the work of the institution lies, makes it practically impossible to avoid the conclusion that—allowing for all causes of accidental variation—the favorable experience of the East End Maternity Hospital must, in the main, be the result of work of a more efficient character than that in the general community. If so, the causes of the difference deserve careful study. . . .

There can be no question as to the importance of the highly organized and cheerfully accepted ante-natal supervision. For:

(1) It is the beginning of the system of supervision and preventive action characterizing the entire work of the institution.

(2) The doctor and the midwife [illegible] are [illegible] results [illegible] the [illegible] and [illegible]. (a) The [illegible] drop [illegible] (b) [illegible] in [illegible] (c) [illegible] possible simplicity.

News

[illegible]—News items should be typed, if possible, double space, or written plainly, [illegible] proper names. All items should be sent before the 15th of the month preceding publication

The American Nurses' Association

The American Nurses' Association Headquarters in October welcomed the new field secretary, [illegible], who is working in preparation for the forthcoming study of group nursing, general floor duty and similar questions. Hourly nursing will be studied further, both in the registry and the visiting nurse associations, and other aspects of the registry study will be continued.

Digest of Laws

The [illegible] revision of the *Digest of Laws of the States Requiring Registration for Nurses and Attendants* now is available at Headquarters for [illegible] cents a copy. Once again we are indebted to the Wisconsin Legislative Reference Library for making the services of Mrs. Lucile [illegible] for the work. In a recent letter to Headquarters, Mrs. McCarthy expressed her appreciation of the cooperation she received from the states. "I thought the states cooperated wonderfully well two years ago," she wrote, "but they did even better this year."

Cancer

The American Society for the Control of Cancer is making a direct appeal to the nurses of the country to help fight this disease which [illegible]

One of the ways in which the nurse may help bring cancer control before the public is by distributing another pamphlet, entitled, *What Every Woman Should Do about Cancer*. This booklet attempts to teach women some of the early symptoms of cancer and urges early treatment for them.

Letters telling of the availability of these pamphlets were sent from A. N. A. Headquarters to all the state presidents and executive secretaries, and we are delighted to learn from the Cancer Society that the response on the part of the nurses is both prompt and generous. If you will lend yourself to this campaign of education against the dread disease of cancer, you can, no doubt, secure these pamphlets from your state president or state headquarters, or you can write directly to the Cancer Society. In the latter case, leaflets will be mailed to you free of charge if you will state clearly your name and address and how many leaflets you are prepared to distribute. Address, American Society for, the Control of Cancer, 25 West 43rd Street, New York City.

Relief Fund

In the agenda for state associations which was issued in October, the following paragraphs describe the present status of the Relief Fund:

"Some time during the coming months, the states will have received official notice from National Headquarters regarding the termination of relief-giving on a national basis. We are calling your attention to this now in order to continue stimulation of thought regarding what shall be done after 1932.

"A full meeting of the Relief Fund Committee and Relief Fund Advisory Committee has been called for early in January. At that time plans will be made for the intensive study which is to be made. We look to this study to mark out the next steps in certain recommendations to be made to the states in their handling of the problem."

Questions

Among the requests and questions coming to Headquarters during the past month were the following with excerpts from their answers:

[illegible]

Nurses' Relief Fund

[illegible]

[illegible] Alumnae [illegible]	$[illegible]45.00
[illegible] Relief, $5, [illegible]	15.00
[illegible] Rutherford, [illegible] City General [illegible]	164.65
[illegible] General Hos- [illegible]	10.00
[illegible] Newark City [illegible]	5.00
[illegible]	19.00
[illegible]	40.00
[illegible] District 14, $5 [illegible]	10.00
[illegible]	50.00
[illegible] Madison [illegible] District 2, [illegible] District 2, [illegible]	100.50
[illegible]	$814.15
[illegible]	$[illegible].67
[illegible]	
[illegible]	$2,762.00
[illegible]	2.45
[illegible]	$2,764.45
[illegible] over income for [illegible], 1930	$1,[illegible].78

[illegible] the Nurses' Relief Fund [illegible] to the Nurses' Relief Fund [illegible] to the person who collects [illegible] or to the local Relief Fund [illegible] method of collection of contributions [illegible] in the different states. Your [illegible] can tell you to [illegible] should be sent. For application [illegible] for beneficiaries, apply to [illegible] or district association, or [illegible]. For leaflets and [illegible] address the state chairman, or [illegible] the American Nurses' Association [illegible], 370 Seventh Avenue, New York [illegible].

[illegible] in error, a contribution of [illegible] report for New Jersey [illegible] credited to the Paterson [illegible] Association instead of [illegible] 2.

[illegible] Robb [illegible] Fund

[illegible] 10, 1930

[illegible]	$[illegible],124.13
[illegible]	5.00
[illegible]	30.00
[illegible] Hospital Alumnae, [illegible]	5.00
[illegible]	5.00
[illegible]	$[illegible]

[illegible], Treasurer.

[illegible]

The McIsaac Loan Fund

REPORT TO OCTOBER 10, 1930

September 11, Balance	$116.65
Bank interest	.45
Contributions	
Illinois: State Assn.	5.00
Iowa: State Assn., $25; Benj. Hershey Alumnae, Muscatine, $5	30.00
Massachusetts: Noble Hospital Alumnae, Westfield	5.00
Pennsylvania: District 3	5.00
Payment of interest on loan	20.00
Total	$182.10
Disbursements	None
October 10, Balance	$182.10

MARY M. RIDDLE, *Treasurer.*

Scholarships are awarded once a year in the spring. Loans are made to approved candidates when the state of the treasury warrants. Contributions are greatly needed, especially to the McIsaac Loan Fund, as there is a list of waiting applicants. Contributions for either fund may be addressed to the Treasurer, Mary M. Riddle, Care American Journal of Nursing, 370 Seventh Avenue, New York. For application blanks, address the Secretary, Katharine DeWitt, at the same address.

Spanish-American War Nurses

The SPANISH-AMERICAN WAR NURSES, at their encampment in Philadelphia, elected the following officers for 1930–1931: President, Rose M. Heavren, Connecticut; vice presidents, Mrs. Eve Trenholm Green, Virginia; Esther V. Hasson, District of Columbia; Mrs. Janet D. M. Jones, Michigan; Elizabeth McCoy, Ohio; Mrs. Medora A. Springer, California; Mrs. Mathilde H. Bowen, Illinois; Jane F. Riley, Massachusetts; Mrs. Agnes L. McIntyre, New York; Mrs. Elizabeth E. Herndon, Arkansas; Hattie J. Latimer, Louisiana; secretary, Catherine D. Pilgard, Connecticut; corresponding secretary, Mrs. Helene B. Schuler, New York; chaplain, Eliza H. B. Jones, Illinois.

Army Nurse Corps

During the month of September, 1930, orders were issued for the transfer of members of the Army Nurse Corps to the stations indicated: To Fort Leavenworth, Kansas, 2nd Lieut. Lillie S. Pope; to Fort Sill, Okla., 2nd Lieut. Mary C. Beck; to Fort Snelling, Minn., 1st Lieut. E. Valine Mauser, Chief Nurse, and

2nd Lieuts. Edith [illegible], Mary Ann [illegible], Lucile [illegible] to Walter Reed General Hospital, Washington, D. C., for observation and treatment, 2nd Lieut. [illegible]; Katherine I. [illegible] to Fort Francis E. Warren, Wyo., 2nd Lieut. [illegible] E. [illegible].

Twenty-[illegible] were admitted to the Nurse Corps as Second Lieutenants. Orders for Gertrude E. [illegible] have been revoked.

The following are under orders for separation from the Corps, Second Lieutenants Helen [illegible], Margaret E. [illegible], Cora Lee [illegible], Annette [illegible], Genevieve [illegible], Lola C. [illegible], Louise E. [illegible], [illegible] M. [illegible], Lillian A. [illegible], Louise E. [illegible], Myrtle E. [illegible], Claude Louise [illegible]. Orders for the discharge of 2nd Lieut. [illegible] have been revoked.

The Superintendent of the Army Nurse Corps made addresses at the meetings of the Missouri State Nurses' Association in Columbia, and of the Nebraska State Nurses' Association in Omaha.

Julia C. Stimson,
Major, Army Nurse Corps,
Superintendent.

Navy Nurse Corps

During the month of September, eleven nurses were appointed and assigned to duty.

The following transfers were made: To Annapolis, Md., Carrie H. [illegible], Chief Nurse; to Annapolis, Md. (Dispensary), Mary E. Moore, Chief Nurse; to Brooklyn, N. Y., Margaret C. Donovan, Katherine E. Greer, Agnes E. [illegible], M. Alice [illegible]; to Canacao, P. I., DeLyle G. [illegible], Chief Nurse, Mildred E. [illegible], Ella M. [illegible], Irene [illegible], Lillie E. [illegible]; to Chelsea, Mass., Bertha E. DeWitt, Mabel I. Gardiner, Mary H. King; to Great Lakes, Ill., Lillian V. [illegible]; to Great Lakes, Ill. (Dispensary), Louise A. [illegible], Chief Nurse; to Guam, M. I., Mabel T. Cooper, [illegible] Hawkinson, Alice B. [illegible], Anna F. Patton; to Hampton Roads, Va. (Dispensary), Lillian [illegible], Chief Nurse; to [illegible], Florence M. [illegible], Chief Nurse, [illegible] I. Walter; to Mare Island, Calif., Louise A. MacFarland, Marguerite [illegible], Gertrude K. Zollman; to Norfolk, Va., Mabel L. [illegible], Chief Nurse; to Pearl Harbor, T.H., [illegible] L. [illegible], Chief Nurse; to Puget Sound, Wash., Hester A. [illegible]; to U.S.S. [illegible], Mary F. Tracy; to San Diego, Calif., [illegible] A. Killion; to Washington, D. C., [illegible] G. Counts, Pearl T. Hall.

The following nurses were separated from the Service: Edith M. [illegible], Carolyn [illegible], Anna E. [illegible], Mary [illegible], Anna M. [illegible], Norma L. [illegible], Viola G. Abel.

J. Beatrice Bowman, R.N.,
Superintendent.

U. S. Public Health Service

The following transfers and new assignments have been made in the U. S. Public Health Service during the month of September, 1930:

Transfers: To Chicago, Ill., Marie Niklaus; to Baltimore, Md., Elva Dickinson; to Boston, Mass., Mary Gordon; to New Orleans, La., Nell Fowler; to Hudson Street, New York City, Margaret Cheshire.

New Assignments: Eight.

Lucy Minnigerode,
Superintendent of Nurses.

United States Veterans' Bureau

Bureau of Nursing Service, September, 1930

The Bureau of Pensions, the National Home for Disabled Volunteer Soldiers, and the U. S. Veterans' Bureau are now component parts of the Veterans' Administration, under General Frank T. Hines, Administrator. It [illegible] follows that each facility of these [illegible] represents a contact point where the disabled veteran can seek and obtain the service and relief for which he is eligible. The National Home for Disabled Volunteer Soldiers at Dayton, Ohio, which has jurisdiction over ten branches, will be known hereafter as the Bureau of National Homes.

The work on a [illegible] building program is being pushed by the U. S. Veterans' Bureau in the hope of completing within three [illegible] new hospitals which will aid greatly in solving the [illegible] problem for veterans. [illegible] new [illegible] the existing [illegible] [illegible] This [illegible] many [illegible] ap- [illegible] new hospitals to be [illegible] Ky., [illegible], Conn., [illegible] Calif., [illegible], N. J., and [illegible], Pa. [illegible] construction has [illegible] avail- able by the [illegible] by the Congress of

[illegible] for additional facilities: at Bed-[illegible] beds; New York, N. Y., [illegible], New York State, 400 [illegible] beds; Alabama, [illegible], Miss., [illegible] beds; Indiana, [illegible] Chicago, [illegible] beds; Knox-[illegible] beds; Albuquerque, N. M., [illegible] Francisco, 200 beds; Camp [illegible] beds; Utah, 100 beds; [illegible] beds; and Memphis, Tenn., [illegible] total of over 4,000 beds. [illegible] hospital unit at the [illegible] Leavenworth, Kans., re-[illegible] by the Veterans' Bureau under [illegible] of all government agencies [illegible] relief, with a view to [illegible] and efficiency of the [illegible] so as to achieve the [illegible] economy in opera-tion, [illegible] and betterments.

During the month of October, Mary A. [illegible] of Nurses, visited the U. S. [illegible] Hospital, Bronx, N. Y., for the purpose of supervising the nursing activities and in connection with the third post-graduate course in psychiatric nursing which began October 1 at that station. In establishing this course, which is a very progressive movement, it is hoped to bring home to the nurses the fact that there is a field and future [illegible] for nurses in psychiatric nursing. Ten nurses have been selected to take the course.

During the month of September, 1930, the following-named nurses have been reinstated: [illegible], [illegible], Lucille Hardy, Mary V. [illegible], Julia Mead, Clara Parker, [illegible].

[illegible] appointments were made, and the following have been separated from the Service: [illegible] Bailey, [illegible] Blatchley, [illegible], Isabella K. Bulmer, Helen [illegible], Julia A. [illegible], Helen C. [illegible], Anne F. Johnson, [illegible] Kennedy, Mary V. [illegible] Coyle, Harriet K. Luther, [illegible] McKenna, [illegible], Flora [illegible], Lillie Self, Alice M. [illegible] McCrory, Ida M. Young, [illegible] McIntire.

[illegible] for the transfer of the [illegible] to North Chicago, Ill., [illegible] Aspinwall, Pa., Ruth [illegible], N. C.: Annie Lott; to [illegible] Mabel [illegible]; to [illegible], Mrs. Augusta [illegible].

Mary A. Hickey,
Superintendent of Nurses.

[illegible]

U. S. Indian Service

During the month of September the following changes have taken place in the nursing personnel of the Indian Service:

Appointments: Thirteen.

Separations: Eight.

Transfers: To the Fort Mojave School, Arizona, Mary J. Sehon; to the Flathead Agency, Montana, Ruth E. Murphy; to the Carson School, Nevada, Mrs. Bessie K. Houts; to the Standing Rock Agency, South Dakota, Mrs. Alice V. Pereau.

Elinor D. Gregg,
Supervisor of Nurses.

Institutes and Special Courses

Connecticut: The Educational Section of the Graduate Nurses' Association will hold an institute at Heublein Hall, Hartford, November 5 and 6.

Iowa: A series of nursing institutes in maternal care will probably be held in November, conducted by Anita M. Jones of the New York Maternity Center. The provisional dates are: November 6 and 7, Davenport; November 10 and 11, Council Bluffs; November 13 and 14, Des Moines. These institutes are open to all nurses for a fee of $3.00. At least twenty must register and not more than forty-five can be accepted.

Texas: The Texas State League of Nursing Education will hold its annual institute in Austin, November 12, 13 and 14, at the Seton School of Nursing. The program will include a series of lectures on "The Principles and Methods of Teaching" by I. I. Nelson, and on "The Principles and Organization of Supervision" by Fred C. Ayers, Ph.D., both from the faculty of the School of Education, University of Texas; a lecture and demonstration of "The Use of Slides in Teaching" by Mrs. Charles Moore, from the Visual Education Bureau, University of Texas; "Sociology for the Nurse" and "Physical Education for the Nurse" by professors from the University. There will be carefully planned and conducted round tables for the directors of nursing schools, for the instructors, and for the supervisors. An exhibit from the nursing schools is being arranged.

State Boards of Examiners

Delaware: The Delaware State Board of Examiners of Nurses will hold the next

examination at the [illegible] Hospital, Wilmington, on Monday, December 1, at 9 a.m. All applications must be in the hands of the Secretary, Mary A. [illegible], not later than November 22.

Indiana: The Indiana State Board of Registration and Examination of Nurses will hold an examination on November [illegible] in the State House, Indianapolis. Mary C. Walsh, Secretary.

Montana: The Montana State Board of Examiners for Nurses will hold examinations for nurses, December 3 and 4, at 9 a.m., at the Capitol Building, Helena. All applications are to be filed with the Secretary, Edith L. Brown, Box [illegible], Helena, by November 1.

New Jersey: The next examination for certificate of Registered Nurse in New Jersey will be held on Saturday, December [illegible]. Applications [illegible] after November [illegible]. For further information apply to Mrs. [illegible], President, Secretary-Treasurer, [illegible] Street, Newark.

Oklahoma: The Oklahoma State Board of Nurse Examiners will hold examinations December 3 and 4, at the State Capitol in Oklahoma City. All applications must be filed with the Secretary, [illegible] A. [illegible], 1101 East 13 Street, Oklahoma City, by November 15, 19[illegible].

Tennessee: Mrs. Cassie Hawkins has resigned as secretary of the Tennessee State Board of Nurse Examiners. She is succeeded by Mrs. Blanche Frey [illegible] of Nashville.

Wyoming: The Wyoming State Board of Nurse Examiners announces examination and registration of nurses, December 1, 2 and 3, in Cheyenne. Mrs. H. C. Olsen, Secretary.

State Associations

Connecticut: The autumn meeting of the Graduate Nurses' Association of Connecticut was held in New Haven, October [illegible]. The Section meetings were held in the morning, with a general meeting of the Association in the afternoon.

The subject for the Public Health Section was Social Hygiene. The speaker, Dr. Walter Clarke, Director of the Division of Medical Measures of the American Social Hygiene Association, discussed the "Relationship between Social Hygiene Clinics and Other Community Organizations." Miss [illegible] C. Moore, Assistant Director of the N. O. P. H. N., discussed the "Relationship of the Public Health Nurse to the Social Hygiene Problem." Miss [illegible] of [illegible], editor of "The Visiting Nurse Magazine" of the N. O. P. H. N. and of [illegible] of the official magazine, the Public Health Nurse, [illegible] Addison [illegible] of the [illegible] which are to be used in the [illegible] monthly [illegible] of public health nursing organizations [illegible].

The [illegible] had for its morning program a [illegible] Milwaukee Convention from the [illegible] point of view by Mrs. Mary [illegible] of New Haven, the delegate to Milwaukee, and from the [illegible] point of view from Mary [illegible] of Waterbury. The afternoon [illegible] of the [illegible] was given over to two round tables. The subject for each was, "The Educational Committee,—its Purpose and Usefulness." One round table was for the staffs having [illegible] and the other for [illegible].

The [illegible] Section had a very full and interesting program for their morning session. After the business session, a [illegible] of the [illegible] Section is to [illegible] was given by Miss [illegible]. The speaker for the morning was Dr. Herbert D. [illegible], Principal of the State Normal School in New Britain, who chose as his topic, "Health Work in Public Schools." A round table discussion on training school problems completed the morning program.

The Private Duty Section held one of the best and most interesting meetings they have had, with [illegible] presiding. After the business meeting, [illegible] of New Haven discussed "What You Should Know about [illegible]." [illegible] of [illegible] of New Haven, [illegible] and [illegible].

[illegible] p.m. [illegible] T. [illegible] it [illegible]

[illegible] for the Advancement of [illegible]

[illegible] of the afternoon [illegible] Visiting Nurse Asso- [illegible] which gave the oppor- [illegible] new office. At 5.30 [illegible] Club had the [illegible] meeting, for it [illegible] accepted the invitation [illegible] to be their guests at [illegible] A feature which added [illegible] of those driving auto- [illegible] made by [illegible] with the Public Depart- [illegible] the special sticker [illegible] the time parking regula- [illegible] were the gift of the [illegible] of the New Britain General [illegible]

[illegible] a splendid meeting. The [illegible] the program splendid and [illegible] entertained. Five [illegible] guests were present.

[illegible] annual conven- [illegible] State Nurses' Associa- [illegible] annual convention [illegible] of Nursing Educa- [illegible] West Baden Springs [illegible] September 25, 26 and 27. [illegible] members of the [illegible] first day's meeting, [illegible] to the program for the [illegible] hundred and fifty members [illegible] of the Indiana State [illegible] the next two days.

[illegible] opened with a [illegible] September 25, with Mrs. [illegible] The members of [illegible] welcomed by R. F. Hall [illegible] the business ses- [illegible] Shirley C. [illegible] School of Nursing and [illegible] Vanderbilt [illegible] Tenn., opened the [illegible] The Asso- [illegible] in having [illegible] of the American [illegible]

cation elected for the next year are as follows: President, Mrs. Ethel P. Clarke, Indianapolis; vice president, Nellie G. Brown, Muncie; secretary, Frances S. Macmillan, Indianapolis; directors, Edith Willis, Vincennes; Anna Holtman, Fort Wayne; Margaret O'Neil, Indianapolis.

The convention of the INDIANA STATE NURSES' ASSOCIATION opened with a business session on September 26, Gertrude UpJohn presiding. The business session included reports of the officers, standing committees, special committees, Secretary and Educational Director of the Indiana State Board of Examination and Registration of Nurses. The report of the delegate to the annual meeting of the American Red Cross at Washington, D. C., was given by Helen Bean. R. F. Hall of West Baden spoke a few words of welcome to the members of this Association, and the President gave a very inspiring address. The meeting was then given over to the Private Duty Section, with Mrs. Cora Bertram presiding. Following the business session, reports of the five official registries were given. Later the private duty nurses had a round table. The officers elected for the Private Duty Section for next year are: Chairman, Martha Hadley, Indianapolis; vice chairman, Frances Arnold, Indianapolis; secretary, Mrs. Cora Bertram, Evansville. The morning session closed with Flora Alice Dutcher's splendid paper, "How Can We Tell It to the Public?"

The afternoon session was of vital interest to the private duty nurses. It included a very complete and enlightening paper, "Experiments under Way in Hourly Nursing," by Beatrice Short, Indianapolis. Miss Short's paper was discussed from the standpoint of the registrar by Mrs. Kathryn D. Fansler, Executive Secretary, Nurses' Central Directory, Indianapolis; from the standpoint of the hospital administrator by Nellie G. Brown, Director, Ball Memorial Hospital School of Nursing, Muncie; and from the standpoint of the private duty nurse by Anna Lumpkins, Bloomington. No one who attended this session could have failed to have a broader vision of nursing after Mary M. Roberts' impressive and inspiring address on "Courage." Following the afternoon session on Friday, the members enjoyed the swimming, golf, riding and bowling contests. In the evening they participated in bridge and dancing.

On Saturday morning, after a short business session of the State Association, the meeting was given over to the Public Health Section, with Ina M. Gaskill presiding. Interesting

sidelights in the lives and activities of Red Cross nurses and nurses engaged in industrial and public health work formed the programs of both forenoon and afternoon sessions. Eva F. MacDougall, Director, Indiana State Board of Public Health Nursing, spoke on the activities of that department, and Helen Bean, Indiana Field Representative of the American Red Cross, followed, showing how the Red Cross aids in the extension of public health nursing service in Indiana. "Shots on Industrial Nursing" was the subject discussed by Ruth Waterbury of New York, who showed how a policy of prevention was regarded as an economic investment by many of the large industrial organizations. Henrietta Landau, Assistant Director of the Indiana State Department of Public Health Nursing, encouraged the members to use their time off duty in following definite reading courses either to advance their knowledge in their chosen work or to study some subject which they found interesting. At the general session on Saturday morning, Carrie M. Hall, Chairman, Committee on Relief of the American Nurses' Association, talked on "Thrift, Systematic Savings and Old Age Protection." Mary M. Meyers, Chairman, Committee on Relief, District 4, Indiana State Nurses' Association, discussed the status of the National Relief Fund, and Belle Ragins, of the Family Welfare, talked on "Planful Relief-Giving." Pointing out the many-sided demands made of the public health nurse, Anne Hubbard, Professor, Public Health Nursing, Washington University, St. Louis, Mo., who was the principal speaker on the afternoon program, said a successful public health nurse must be an executive, a teacher, a good publicity writer, a practical housekeeper and an emergency physician, as well as a nurse. The afternoon session closed with the showing of films "Posture" and "The Gift of Life." These films were provided by Dr. Ada Schweitzer of the Indiana Board of Health.

The officers of the Public Health Section for next year are: Chairman, Hulda B. Cron, Evansville; vice chairman, Grace Beatty, Vincennes; secretary, Lulu V. Cline, South Bend.

Special meetings included a meeting of the State and Local Red Cross Committees on Saturday morning. There were two luncheon round tables—one for district and alumnae presidents, secretaries and treasurers on Friday, and the other for industrial nurses on Saturday.

The officers of the Indiana State Nurses' Association elected for next year are: President, Gertrude UpJohn, Evansville; vice presidents, Lulu V. Cline, South Bend, Elizabeth P. Fitzer, Ft. Wayne; secretary, Flora Alice Dobbins, Indianapolis; treasurer, Mary Ellen Thompson, Princeton; directors, Ina M. Gaskill, Indianapolis, Hulda B. Cron, Evansville. The directors who remain on the Board are: Anna M. Holtman, Ft. Wayne; Rosalie M. Graves, Terre Haute; Nellie G. Brown, Muncie; Rebecca Wilkinson, Indianapolis.

Gary was chosen for the convention city of 1931 for the two Associations.

Iowa: The annual meetings of both the Iowa State League of Nursing Education and Iowa State Association of Registered Nurses held in Burlington, October 7 through 10, were outstanding. Never have the associations enjoyed a greater variety of subjects or speakers. A résumé of program follows:

The Iowa State League of Nursing Education. A one-day session of the League was held October 7. The forenoon program included three splendid papers: "Selection of Nursing Personnel Including the Final Acceptance of Preliminary Students," Gladys Sellew, Assistant Dean, Cook County Hospital School of Nursing, Chicago; "Staff Conferences, Value of and Methods of Conducting," Ada Belle Crocker, Director, School of Nursing, St. Luke's Hospital, Chicago; and "The Value of Psychiatric Instruction in Relation to General Bedside Nursing," Eloise Shields, Director of Nursing, Psychopathic Hospital, Iowa City, Iowa. In the afternoon Adda Eldredge, Director, Nursing Education, Wisconsin, gave an interesting paper on "Standardizing Organizations and Their Effect upon Hospitals and Schools of Nursing." Miss Eldredge's paper was followed by a round table discussion of numerous questions pertaining to administrative problems and the training of students.

The Iowa State Association of Registered Nurses. On October 8, the twenty-seventh annual meeting of the Iowa State Association of Registered Nurses was called to order by the President, Grace Van Evera. The forenoon was filled by a business session and the President's address. 12.30 p.m., Advisory Council Luncheon. 2 p.m., "The Value of State Headquarters," Mrs. E. B. August, General Secretary, Ohio State Nurses' Association; "Practical Problems of Nursing Education," Gladys Sellew; "Psychiatric Instruction in the Nursing Field," Henry D. [illegible], M.D., Dean of Medical School, Iowa State University; "Navy Nursing," Betty Mayer, Assistant Superintendent, Navy Nurse Corps. 4.30 p.m., Tea at Burlington

[illegible] Nurses' Home given by the Burlington [illegible] Guild. 8 p.m., Mrs. Max [illegible] Community Center, Des Moines, and prominent in Women's Club work, gave a most interesting address on "The World Court."

On October 9, the forenoon sessions were in the hands of the sections.

The Public Health Section. Morning. Business meeting. "The County Committee," [illegible] Johnson, County Superintendent of Schools, Fort Dodge, Iowa; "Prenatal and Infant Welfare Nursing in a County Health Program," Lillian R. Smith, M.D., Director, Bureau of Child Hygiene and Public Health Nursing, State Department of Health, Michigan; "Full-time County Health Units," [illegible], M.D., Director, Coöperative County Health Work, State Department of Health, Des Moines, Iowa. 12.30, Public Health Section Luncheon.

Private Duty Section. Business Session. "Report of Progress in Twelve-Hour Duty," Mary [illegible], Council Bluffs; "Record Course for Nurses," Loena Ingalls, Dubuque; "[illegible]," Dr. James S. Cooper, Burlington; "Behavior Problems with Sick Children," [illegible], Cedar Rapids; "The Need of Hourly Nurses," Lelia Gladstone, Muscatine. 12.30, Round Table Luncheon.

Lay Group. Business meeting. 10.30, General topic: "Methods of Coöperation of Health and Social Agencies," discussed by Robert E. Neff, University Hospital, Iowa City, Agnes Samuelson, State Superintendent of Public Instruction, Mrs. Edith Barker, Extension Department, State Agriculture College, Ames, Lucy Minnigerode, United States Public Health Service, Washington, D. C. 12.30, Lay Luncheon.

Student nurses, of whom there were fifty [illegible], were entertained at luncheon by [illegible] and Pupils of Mercy Hospital and the Nurses of Burlington Hospital. The afternoon session—"The Private Duty Field and Its Nursing Problems," [illegible], Michigan; "The Guidance [illegible] of Children," John E. Anderson, Ph.D., Director, Institute of Child Welfare, University of Minnesota; "Mental Hygiene as a Part of a Community Health Program," [illegible], Ph.D., School of Education, [illegible] University, Chicago; "The [illegible] Field and Its Problems," Lucy [illegible], Superintendent of Nursing [illegible] Public Health Service, Washington, D. C. 6.30, Banquet. The [illegible] speaker was Dr. [illegible] Bose, Department of Political Science, Iowa State University. Dr. Bose gave a most interesting and intimate address on "Gandhi and the Indian Situation."

October 10, Red Cross Breakfast. 8.30, "Annuities for Nurses," Carrie M. Hall, Peter Bent Brigham Hospital, Boston; "Newer Developments in the Red Cross Nursing Service," Mrs. Elsbeth Vaughan, Assistant National Director, Nursing Service, Midwestern Branch, American Red Cross. Business of the Association concluded the forenoon session. 12.30, Ex-Service Nurses' Luncheon.

The afternoon was given over to an auto trip around Burlington and a scenic trip along the Mississippi River to Keokuk. After viewing the Government dam, tea was served at Graham Hospital. Officers elected for the State Association are: President, Clara Craine, Davenport; vice presidents, Wavie Stiles, Sioux City and Sister M. Albert, Council Bluffs; secretary, Maude E. Sutton, Des Moines; treasurer, Frances Pederson, Dubuque. The League President is L. Blanche Corder, University Hospital, Iowa City.

Minnesota: The annual meetings of the Minnesota State Registered Nurses' Association, the Minnesota League of Nursing Education and the State Organization for Public Health Nursing were held in St. Paul, October 15, 16, 17. The Minnesota State Registered Nurses' Association celebrated the twenty-fifth anniversary of its organization by special features on the program honoring the charter members and inspiring the younger ones. Janet M. Geister, Director, National Headquarters, was guest of honor, and spoke on the "Economics of Nursing" at the Thursday afternoon session and again at the banquet in the evening. Marie Jamme Stuhr, formerly president and secretary, and a charter member, now Executive Secretary of the Omaha District, addressed the Private Duty Section. The Art Gallery of photographs of nurses, hospitals and nurses' affairs of twenty-five years ago, was an original feature of the convention and caused much reminiscing and merriment. An exhibit of alumnae, district and state bulletins was shown including those of other state associations. The banquet on Thursday, October 17, was the special anniversary event. Charter members present were seated at a specially decorated table, and as each one was introduced by the hostess, Thelma Berck Anderson, President of Fourth District, she rose and bowed, after which the charter members joined in singing an original song. This was responded to by forty senior students in uniform from the twenty schools in

Minnesota which were in existence twenty-five years ago. The student wearing the 19[illegible] uniform of her school was accompanied by another in the 1900 garb. [illegible] under leadership of Mrs. [illegible] Anderson, President, and Clara [illegible], Executive Secretary, made all arrangements for the convention, and it is due to their efforts and those of a large committee made up of [illegible] presidents and representatives from individual members, that the meeting was such a successful one.

Some of the papers presented were: "Anesthesia," Agatha Hodgins, Cleveland, Ohio; "What Constitutes a Schedule for Anesthesia?" Josephine [illegible]; "The Psychology of Habits for the Preschool Child," Mrs. [illegible]; A Symposium on Mental Hygiene: "Responsibility of the Individual," Anna [illegible], M.D.; "Responsibility of the Nurse," Jean Taylor; "Responsibility of the Community," H. H. [illegible], M.D.; "The Economics of Nursing," [illegible]; "Educating the Public in Health Dietary Habits," [illegible]; "Group Nursing,—a Reality," [illegible]; "The Psychology of Middle-aged People," [illegible]; "Some Problems of the Private Duty Nurse as Seen by the Registrar," Mrs. Marie [illegible].

Missouri: The Missouri State Nurses' Association and the Missouri State League of Nursing Education held their joint convention in Columbia, at the Tiger Hotel, October 6-11. The State Association opened with a business meeting on the morning of October 6, Mary E. [illegible] presiding. The invocation was given by Rev. [illegible]; the address of welcome by [illegible] Williams, President of the Missouri State University; the response by [illegible], Kansas City. The President's address was followed by reports. The Advisory Council met at luncheon, with an address by Mrs. L. D. Thompson, and again after the afternoon session.

The Public Health Nursing Section, [illegible] presiding, held the following program at the afternoon session: "The [illegible] Relationship to Other [illegible] the Community as a Whole," [illegible]; "The Nurse in [illegible]," [illegible], New York; a round table [illegible] by [illegible], "[illegible] the Public Health Nurse." At 4 p.m. there was the business meeting of the State League, [illegible] presiding; also the [illegible] Council, [illegible] Peterson presiding; also a conference for office nurses, Helen Wyman presiding.

At the evening meeting the speaker was Dr. [illegible], on "Contribution of the Nurse to the Health and Happiness of Humanity."

On the morning of the 7th, there was a short meeting of the State Association, followed by a session of the State League, with the following papers: "Teaching Medical Nursing," Mrs. [illegible] Jensen; "Social Hygiene in Schools of Nursing," [illegible]; "Significant Findings of the Committee on the Grading of Nursing Schools," [illegible]; "How Professional Women Keep Fit," Mary E. McKee; and an address, Miss [illegible], U. S. Veterans' Bureau Hospital.

At noon, there was a luncheon for the League, the public health nurses and the private duty nurses.

The afternoon session was in charge of the Private Duty Section, [illegible] presiding, and the following papers were presented: "Group Nursing in Private Duty," Anna C. [illegible], [illegible] Private Duty Section; "The Private Duty Nurse and Her Lay Friends," Mrs. H. F. [illegible]; "The Private Duty Nurse as a Community Health Worker," [illegible], New York. A round table was conducted at 4.30, Anna C. [illegible] presiding: "Defining the Relationships of the Private Duty Section and Other Groups," [illegible]; "Our Registries," [illegible].

The banquet in the evening, in honor of the twenty-fifth anniversary of the State Association, was attractive and beautiful. The [illegible] "Some Early [illegible]," [illegible] by Edgar Allen [illegible], [illegible] of Medicine, University of Missouri, [illegible]; "[illegible]," by [illegible] keep [illegible] alert [illegible].

[illegible] was held [illegible] a Red Cross [illegible] was given [illegible] L. [illegible] Reserve [illegible]" by [illegible] from [illegible] State [illegible] was [illegible].

[illegible] spoke on [illegible] and John C. [illegible].

[illegible] are:

[illegible], Springfield; vice [illegible] Mary E. Stebbins, Columbia, and [illegible] Columbia; secretary, Mrs. [illegible], treasurer, Bertha Love, [illegible].

A [illegible] office nurses in conference, [illegible] the President to "ap-[illegible] of office nurses and anesthe-[illegible] the number of nurses in each [illegible] line of work with the view [illegible] section in this state. [illegible] be empowered to [illegible] the program of 1931."

[illegible]: The Graduate Nurses' Association of New Hampshire held its [illegible] meeting on June [illegible], at the nurses' home [illegible] Hospital, Portsmouth, [illegible] members in attendance. [illegible] opened at 10 a.m. [illegible] private duty nurses and [illegible] in the class and ac-[illegible] up-to-date home. The [illegible] Duty Section united, [illegible], to hear Janet [illegible] greetings from National [illegible] was read, prepared by [illegible] American Nurses' Association [illegible] League of Nursing [illegible] some of the problems [illegible] to be expected, [illegible] discussed the prob-[illegible], by request, [illegible]. Carrie M. Hall, [illegible] Hospital, Boston, [illegible] National Relief Fund Com-[illegible] discussion. At noon [illegible] by the hospital on the [illegible] was inspected.

[illegible] was opened by the [illegible] of Keene Hos-[illegible] meeting it was decided [illegible] on the death of [illegible] Mrs. Ethelyn Jenkins. [illegible] was given to the two [illegible] and Miss Hall, the [illegible] "Economics of [illegible] of the private duty [illegible] for the time of [illegible] the [illegible]. A vote of [illegible]. Tea was [illegible] Hospital Alumnae [illegible].

[illegible] elected officers of the [illegible] are: [illegible] Portland; [illegible] directors, [illegible] and Mrs. Emma [illegible]. The place of the next annual meeting will be Portland; the date is not yet decided.

Wisconsin: The Wisconsin State Nurses' Association held an adjourned meeting of the annual meeting, which was held in Milwaukee during the Biennial, at the Hotel Schroeder, October 4. Only routine business was transacted. The city of Wausau was chosen as the meeting place for 1931. The following officers were elected: President, Jeanette Hays, Milwaukee; vice presidents, Mary C. Orbison, Appleton, and Marie C. Gobel, La Crosse; secretary, Mrs. C. D. Partridge, Cudahy; treasurer, Helen O'Neill, Milwaukee; directors, Mrs. L. A. Duffin, Whitewater; Mrs. R. H. Bitters, Oshkosh; Mathilda Gabel, La Crosse; Irene Wiesbrook, Madison; Levina Dietrichson, Plymouth. After the meeting the new board met and approved a recommendation from the outgoing board that a sum of $1,500 be set aside for the following purposes: 1st, to give every district the privilege, upon request, of a visit from the president; 2nd, to send the secretary to all the districts to assist the officers of alumnae and districts in their organization work. This sum was taken from part of the balance of the State Biennial Fund, collected from the State Association to entertain the National Convention in Milwaukee in 1930.

District and Alumnae News

Alabama: Birmingham.—District 1 held a meeting on September 10, at the Nurses' Club. Business was followed by reports of the Biennial Convention by the delegate, Mrs. Pansy Reed Barnhart, President, and by Catherine Moses and Helen McLean.

California: Los Angeles.—District 5 announces the following program for the coming winter: November 4, 2.45 p.m., "The New Los Angeles County General Hospital," Neal N. Wood, Superintendent; December 2, 2.45 p.m., "Budgets," Nina Streeter, University of Southern California; January 6, 8 p.m., "Acute Anterior Poliomyelitis," A. G. Bowers, M.D.

District of Columbia: Washington.—The September meeting of the District of Columbia League of Nursing Education was held at Walter Reed Hospital, September 25, and a talk on "Occupational Therapy" was given by Miss Montgomery of the Walter Reed Hospital.

Georgia: Savannah.—First District. The annual report of St. Joseph's Hospital

ASSOCIATION made by Josephine A. Dillon, Secretary-Treasurer, indicates a successful year, financially and otherwise, with meetings well attended and an increase of 23 members over last year. The number of subscribers to the *American Journal of Nursing* has increased. Through card parties, rallies, dances, etc., funds have been raised to take care of gifts to the hospital and students. A [illegible] is rendered among them, flowers to sick members, donations to charity, etc. Several of the members have taken post graduate courses and several have entered the public health and institutional fields of service. Columbus.—The Fourth District held its annual meeting October 3 at the Parish House of the Trinity Episcopal Church. New officers were elected as follows: President, [illegible]; vice presidents, Mrs. [illegible], Ella Davis; secretary, [illegible]; treasurer, Hattie Weldon. [illegible], of Cuthbert, the State President, was present and gave an interesting talk on the coming state convention. Macon.—Sixth District. Annual report of the Macon Hospital Alumnae Association showed 78 active members, with ten new members received during [illegible]. Activities of the Association have included supplying flowers to sick members and others. Officers elected for the new year are: President, Virginia Shepard; vice presidents, Mrs. Lee Banks, Hattie White; secretary, S. Lula [illegible]; treasurer, Mattie P. [illegible]; directors, Mrs. Joe [illegible], Bessie Taylor, Lucy Arnold and Mrs. [illegible]. Committees appointed: Fund, [illegible]; Program, May [illegible]; Nominating, Nannie [illegible]; Membership. Rome.—Seventh District. The annual meeting was held October 2. Following the business session Dr. Lester Harbin gave a paper on the "Discovery of Medicine." Shirley C. Hancock of Cedartown was reelected president; Mrs. [illegible] Grant was reelected secretary and Mrs. C. D. Taylor was reelected treasurer. Leslie Atkinson and Mrs. C. D. Young are vice presidents. Gainesville.—Ninth District. The annual meeting was held the latter part of September. The following officers were elected: President, Ruby [illegible]; vice president, Mrs. Ruby [illegible]; secretary, Alice Thompson; treasurer, Dorothy Smith; directors, Mrs. [illegible] F. Smith, Olive [illegible] and Alice Hatcher. The Association received six new members. Downey Hospital Alumnae Association met the same afternoon, with twelve members present and five new members added to the roll. The following were chosen officers: President, Constance [illegible]; vice president, Alice Hatcher; secretary, [illegible] Lee Richardson; treasurer, Mrs. Irene Carlan Harrison; and three directors.

Michigan: Detroit.—The Detroit Association met at the Alger Club on the evening of September 5, at which time the following papers were read: "Newer Conceptions in Nursing Education," Mrs. Louise [illegible]; "The Private Duty Nurse and The Registry," Mrs. Lena [illegible]; "Organizing Our Resources," Lydia Anderson. The Farrand Training School for Nurses Alumnae Association met at the MacLaughlin residence, on September 8, and discussed local problems relating to the private duty nurse. Grayling.—The District Association held a meeting in Mercy Hospital, September 15. The latest Bulletin from National Headquarters was read, and the *Proceedings of the Twenty-seventh Convention of the American Nurses' Association* were reviewed. Muskegon.—Graduate nurses of Ludington met at the Paulina Stearns Nurses' Home on the evening of September 18, and organized as a part of the Muskegon District. These nurses are so far from Muskegon that it is not possible for them to attend district meetings frequently. Therefore, a separate program will be planned for this group. Petoskey.—A meeting of the registered graduate nurses of Emmet and Charlevoix counties was held at Petoskey General Hospital, on the evening of September 17, for the purpose of discussing plans for district organization. There are sixteen individual members of the American Nurses' Association in these two counties. Elizabeth [illegible], Superintendent of Petoskey Hospital, presided at the meeting. St. Joseph.—The St. Joseph District Association met in the [illegible] Hospital Nurses' Home, on September 29, for the purpose of reorganization.

Mississippi: Greenville.—At a called meeting, held June 28, the King's Daughters' Hospital Alumnae Association was reorganized according to the rules of the American Nurses' Association. Officers elected are: President, Mrs. [illegible]; vice presidents, Mrs. [illegible], Mrs. [illegible]; secretary, [illegible]; treasurer, [illegible]. Chairmen of committees are: Program, Mrs. [illegible]; Nominating, Mrs. E. T. White; Nurses' Relief Fund, Mrs. L. [illegible]; Red Cross, Mrs. [illegible]. The Historian is L. [illegible]. A meeting was held on September 1, when a delegate to the State convention was chosen. The next meeting will be held December 1, at the home of Mrs. [illegible].

[illegible]—District 13 held a regular [illegible] September 16 at the Manhattan [illegible] Ward's Island. After the [illegible] of business, Dr. Paul Lonergan, [illegible], held a most interesting [illegible]. The League of Nursing Education held a meeting on the evening of [illegible] at which addresses were given on the [illegible] Convention" by Mrs. Helen W. [illegible] on the "Harmon Association" by [illegible] Hall, and on the "Nurses' Re-[illegible]" by Helen Young. The Industrial Nurses' Club meets on the second Thursday of each month, at 8 p.m., October to [illegible] Central Club for Nurses, 132 East [illegible] Street. There is always a speaker who [illegible] of interest to the industrial nurse and a general discussion follows. The stranger and prospective member are welcomed.

North Carolina: District 1, Asheville.—The regular meeting was held in the Assembly Room of the new County Building on September [illegible], with good attendance. After the usual reports the question of maintaining State Headquarters and Executive Secretary was brought up. Several papers were presented giving information in regard to the value of this office to the State Association, and [illegible] enthusiastic discussion followed. The Association expressed its approval of the State Headquarters office and Executive Secretary by unanimous rising vote, and also voted a substantial contribution to give financial aid in continuing the work. The Secretary stated that many nurses have asked for an R.N. emblem, as there are a great many undergraduates and practical nurses in the field. A resolution that the question of a State R.N. emblem be brought before the State Association for consideration at the annual meeting, was adopted. A called meeting of the District Association was held at the Nurses' Club, September 27, for the purpose of adopting resolutions on the death of [illegible], a beloved member. The Aston Park Hospital Alumnae [illegible] held two conferences in the [illegible] to plan for the re-[illegible] of the Association. On September [illegible] was held at the Aston Park [illegible] with unusually large attendance. [illegible] and outlined the [illegible] emphasizing its value to [illegible]. The standing [illegible] and bylaws were reviewed [illegible] discussed for a [illegible] constructive program for the coming year. The [illegible] Hospital Alumnae Association held the quarterly meeting at the Nurses' Club September 6. After the usual business the Secretary reported the lack of response to notices and letters sent to both resident and non-resident members. A resolution was adopted to ask the state executive secretary to aid in arousing interest of these graduates. The following officers were elected to serve the remainder of 1930 and 1931: President, Emma Green; vice president, Ella Gillespie; secretary, Goldie Pharr. The Rutherford Hospital Alumnae Association is doing fine work on the 1931 membership list and reports interest in the meetings. District 2, Winston-Salem.—The first meeting since June was held on September 11, with excellent attendance. The Registry Committee reported one hundred and three nurses using the Registry. The Program Committee presented Dr. P. A. Yoder, who gave an instructive lecture on "Tuberculosis." Lula West, State Educational Director, gave a talk on "Training Schools." Plans for the State meeting were discussed. The North Carolina Baptist Hospital Alumnae Association met at the Hospital on October 1. The subject for study was "Hodgkin's Disease"; the excellent article in the September issue of the *American Journal of Nursing* was read and discussed by Misses Shirley, Harrill, Major and Cheek. Edna Heinzerling, Superintendent of the Hospital, also made valuable and interesting contribution to the study. District 5, Durham, held the regular monthly meeting on September 9, with large attendance. The State President's report of the Biennial Convention at Milwaukee was read. The question of continuing State Headquarters was discussed. The Association voted unanimously to support the office in every way and pledged strong financial aid from that District. District 6, Raleigh.—The monthly meeting was held at Rex Hospital Nurses' Home on September 11. Communications from Lucile Chrisman, Chairman of State Headquarters Committee, were read. After discussion the following resolutions were adopted: "That District Number Six favors the appointment of the state executive secretary holding a dual position of state secretary and hospital executive devoting some time with the clerical help obtained in the hospital, or the position of official registrar be combined with state secretary, and that State Headquarters be established in Raleigh with permanent files where records may be kept." Elizabeth Moore was appointed to investigate and report if such an office can be secured. The letter from the National President, Elnora

[illegible]

Too Late for Classification

State Boards of Examiners

[illegible] The Kansas State Board for [illegible] Registration of Nurses [illegible] for state registration [illegible] of the Senior High School, [illegible] December 29 and 30, 1930. Applications [illegible] not later than December 14 [illegible] of the Board, Cora A. Miller, [illegible] Memorial County Hospital, [illegible]

[illegible] The next Wisconsin State Board [illegible] for the registration of [illegible] on December 2, 3, 4, and 5, 1930, [illegible] City Hall, Milwaukee, and the [illegible] Application blanks [illegible] this office by November 15. [illegible] Director Bureau of Nursing [illegible] Board of Health, Madison.

Important Requests

[illegible] District 6-B of the Arkansas [illegible] does not wish to be [illegible] advises nurses planning to [illegible] private duty that unemployment [illegible] problem in that branch of [illegible] many local nurses not making [illegible]

Edith Lee McMichael,
President.

Hot Springs National Park.

[illegible] Albuquerque is over-supplied [illegible] this time and we would advise [illegible] coming here to seek [illegible] for the present.

[illegible] A. Montgomery,
President District 1.

[illegible]: Please do not come to Memphis [illegible] to find work, as there is an oversupply of our own graduates.

Miss Elizabeth Pryor,
Secretary District 1.

Deaths

[illegible] (graduate of St. Vincent's [illegible], Ala.), in July. Miss [illegible] private duty nurse.

[illegible] (class of 1921, Philadelphia [illegible] and Infirmary for Nervous [illegible] Carlisle, Pa., on [illegible] illness. Miss [illegible] Pennsylvania and [illegible]

[illegible] (class of 1894, [illegible] Orthopaedic Hospital and Infirmary for Nervous Diseases), on October 12, at the Orthopaedic Hospital, after a long illness.

Mattie Lou Hensen (graduate of Bryce Hospital, Tuscaloosa, Ala.), in July. Miss Hensen had taken a course at the Polyclinic Hospital, New York. She served with the A. E. F. in 1918–19. She was a Red Cross nurse and a valued member of the District Association.

Ada Hill (graduate of the Farrand Training School, Detroit, Mich.), at Harper Hospital, Detroit, following an operation for ruptured appendix. Miss Hill's death was a great shock to her family and friends, as she was apparently improving when complications developed. Miss Hill was a member of Base Hospital 17 during the World War, and was decorated by both the British and French Governments for conspicuous service. At the time of her death she was one of the head nurses in the operating room, Harper Hospital. Her quiet dignity and cheerfulness attracted all with whom she came in contact, and her many friends will miss her sadly.

Eva Jacobs (class of 1925, Sinai Hospital, Baltimore, Md.), suddenly, on August 8, at the Sinai Hospital. Miss Jacobs had been engaged in private duty nursing since her graduation. She was an active member of her alumnae association, and she will be sorely missed. The suddenness of her death was a great shock to all who knew her.

Mrs. Ethelyn Dutcher Jenkins (graduate of the New Hampshire State Hospital, Concord), at Concord, on June 13, after a brief illness. Mrs. Jenkins was a loyal member of her alumnae association and of the Graduate Nurses' Association of New Hampshire, of which she was a charter member. She had been president of both organizations, presiding with dignity and judgment. Her interests were especially with the private duty nurses, and she served as chairman of their section in the Graduate Nurses' Association for a long time. She had been sent as a delegate from the state to the American Nurses' Association and to the New England Division. Mrs. Jenkins was devoted to her work and never spared herself. Her life stands out in its full richness of effort and accomplishment; her spirit and work live on to comfort all who knew and appreciated her worth, especially those to whom she ministered.

Mrs. James Jenkins (Lucile Kurlin, class of 1926, Norwood Hospital, Birmingham, Ala.), on August 28.

R. Dorothy Leach (class of 1926, Bridgeton Hospital, Bridgeton, N. J.), on September 14, at the Bridgeton Hospital. Miss Leach was a private duty nurse. Due to illness, her training extended over a period of five years, which proves her love and devotion for the nursing profession. She will be sadly missed.

Sara Emily McCracken (class of 1897 Birmingham Union Infirmary, Birmingham, England), on September 25, at the Pennsylvania Hospital, Philadelphia, following an operation for appendicitis. Miss McCracken was stricken while on duty with a patient whom she had accompanied from Asheville, N. C., to Philadelphia a few days previous to her illness. Funeral services were conducted at Trinity Church, Asheville, on September 28, under the auspices of District 1, of which she was an active, devoted member. Miss McCracken took postgraduate courses in several branches of nursing service, and was well qualified for the positions which she filled successfully in both institutional and public health work. She was registered in the College of Nursing, London, England, and in the General Nursing Council for England and Wales. Miss McCracken was honored by the British Red Cross and the Order of St. John in recognition of valuable service rendered during the World War, 1914–1918. The following year she came to America and located in Asheville. In 1923 she took out naturalization papers. As a private nurse in the past ten years, Miss McCracken won the confidence and affection of her patients and the admiration of all with whom she came in contact. The North Carolina Nurses' Association has lost a valuable and much beloved member.

Anna Mack (class of 1906, Good Samaritan Hospital, Zanesville, Ohio), on April 17, last. Miss Mack was a private duty nurse, one of the early graduates of her school. She was an active member of her alumnae and district associations, and loved by all who knew her.

Minnie Monahan (class of 1909, Bethesda Hospital, Zanesville, Ohio), suddenly, on February 6, last. Mrs. Monahan was a private duty nurse, of sterling character, who by her gentleness, sincerity and thoughtfulness for others endeared herself to those who knew her. She was president of her alumnae association at the time of her death.

Minnie Parrish (member of District No. 1 of the Texas Graduate Nurses' Association), in El Paso, Texas, October 9. Miss Parrish did heroic work in the Balkans immediately after the war. She was ready to sail for the battlefields when the Armistice was signed. Her outfit was taken over for relief work in the Balkans and she spent two years there. She was at Montenegro two winters and suffered extremely with the cold. She worked night and day during an epidemic and possibly the privations she suffered were responsible for her breakdown about a year after she returned to America. She lived in San Francisco for a time but came to El Paso, where she was able to do private duty nursing for more than three years. About a year ago Miss Parrish had another breakdown and went to the sanitarium where she died.

Mary Jane Robinson (class of 1906, Methodist Episcopal Hospital of Philadelphia), on July 22, after a short illness following an operation. Miss Robinson's entire nursing career was devoted to private duty. She was to each private duty nurse a personal friend, whose generosity and thoughtfulness were never failing. To her alumnae association, she was a source of inestimable helpfulness, through her judgment and her desire for the greatest good to the association.

Allie C. Young (class of 1927 of the Methodist Episcopal Hospital of Philadelphia), on July 15, following an operation. Miss Young was a private duty nurse and will be greatly missed by her classmates and associates.

Victory in Defeat

Defeat may serve as well as victory
To shake the soul and let the glory out.
When the great oak is straining in the wind,
The boughs drink in new beauty, and the trunk
Sends down a deeper root on the windward side.
Only the soul that knows the mighty grief
Can know the mighty rapture. Sorrows come
To stretch out spaces in the heart for joy.

—Edwin Markham.

About Books

Tuberculosis Among Children. By J. Arthur Myers, M.D. 208 pages. Illustrated. Charles Thomas, Springfield, Ill. 1930. Price, $3.50.

In recent reports of tuberculosis death rates in cities over 400,000 population in the United States, the death rate for the city of Minneapolis is the lowest of any city in the group. Those who are familiar with the tuberculosis program of Minneapolis and Hennepin County believe that this low death rate is a result of the work of several men and the splendid institutions for the treatment and prevention of tuberculosis which are the result of their zeal and scientific knowledge. One of these men is Dr. J. Arthur Myers, the author of the book *Tuberculosis Among Children*. We listen with respect to one speaking with such authority.

In this brief review it will be impossible to mention the valuable points set forth. It is strongly recommended that every person interested in health work have a copy of this book and study it carefully. In no other book has such information been assembled.

The preface presents briefly but concisely the shifting of emphasis as to the most important factor in the prevention of tuberculosis and brings out the advantages found in carrying out a tuberculosis program among children as compared with one among adults.

The book is divided into three parts: Part I, Tuberculosis in Infancy; Part II, Tuberculosis in Childhood; Part III, Tuberculosis in the Teen Age. Points of special value are: the manner in which it is explained that tuberculosis is not inherited from mother or father, the careful study of the mechanics of infection, the description of the use of tuberculin in the diagnosis of tuberculosis, the relation between tuberculosis in the community and the health of the children, a new statement of the problem of tuberculosis in the teen ages, and the importance of protecting children from mild cases of tuberculosis among elderly people.

The book is valuable not only for its contents but because of its arrangement. Each chapter closes with a concise summary which will be found very helpful. The list of references at the end of each chapter will afford an opportunity for further study of special topics and indicates some of the most reliable writings on the subject of tuberculosis. There is a well arranged index at the end of the book. Important points are well illustrated. Paper and print are pleasing and the binding attractive.

Chapters were written by C. A. Stewart, M.D., Assistant Professor of Pediatrics, University of Minnesota, and Paul W. Giessler, M.D., Assistant Professor of Orthopedic Surgery, University of Minnesota. Every chapter was submitted to specialists and consideration was given to their suggestions and criticisms. To those who are ardent admirers of Allen K. Krause, M.D. (and who is not?), an important feature of the book is the introduction written by him.

Anna M. Drake, R.N.

Ohio

A Study Guide Test-Book in the Principles and Practice of Nursing. By Lola K. Wolf, R.N., B.S. 139 pages. The Macmillan Company, New York. 1930. Price, 70 cents.

This book is a new departure in tests having to do with nursing procedure. It is not a textbook in the Principles and Practice of Nursing, but a set of tests for measuring objectively the student's progress in that subject.

It is divided into units corresponding with those outlined for the same subject in the *Curriculum for Nursing Schools* published by the National League of Nursing Education. These are Hospital Economics; Admission and General Nursing Care of the Patient; Observation and Recording of the Patient's Condition; Elementary Nursing Treatments; and Advanced Nursing. Each unit is divided into "lessons," each of which is a test or group of tests. Diagrams are provided upon which class scores may be graphed as well as the individual student's position with relation to the rest of her class. Lists of references (those for Hospital Economics are particularly valuable) are given at the end of each "lesson." A variety of "new-type" tests are used: True-false; completion; analogy; matching; multiple choice; and others.

The purpose of such a test-book is to help the student to organize the subject matter; to show the student the extent of her ability and her progress with relation to the rest of her group; and to measure the teacher's ability. In this particular book there are "lessons," especially the earlier ones in Hospital Economics, in which the nine to fifteen true-false statements seem hardly enough to test the whole subject as it must have been given in class. This lack is to a certain extent made up by the fact that the student is required to rewrite false statements as true, or to give the reasons for marking the statement as she does. The later tests in elementary and advanced nursing are more comprehensive than the earlier ones.

The chief values of the book seem to be its attempt, through new-type tests, to make the student see the subject matter which she has acquired in new connections rather than as so many facts learned; its consistent emphasis on the principles underlying nursing procedure; and the stimulation it should be to other teachers of this subject to work out tests for themselves on the basis of the course as they are teaching it. This last is important because tests to be valuable must be comprehensive, and we need constantly to add to those now available before they can be said to test this particular subject adequately.

While the general plan of the book is original, many readers will believe that they recognize certain sources or influences which have guided the author to a marked degree. If they are correct in this belief, they will regret that she has not made more of an acknowledgment in her introduction.

H. W. M., R.N.

New York

A Textbook of Psychology for Nurses. By Maude B. Muse, R.N. [illegible] pages. W. B. Saunders Company, Philadelphia. [illegible] Price, [illegible]

[illegible]

This [illegible]

[illegible] appeared in 1925, it filled a [illegible] need in the field of [illegible], and was speedily [illegible] a large proportion of the [illegible] which offered courses in [illegible]. That need should be [illegible] by the new edition.

While every part of the book shows evidence of careful self-criticism and revision, there is much material presented in addition to that of the earlier edition. New graphs and illustrations supplement more fully than was previously done the explanation of [illegible] specific instances add [illegible]. In addition to this [illegible] discussion of the [illegible] and visual receptors [illegible] the nurse's usually [illegible] information on these [illegible] and should greatly [illegible] of the function- [illegible] mechanism. The [illegible] entirely new chapter on [illegible] of human behavior [illegible] be read and pondered [illegible] persons other than [illegible] and their instructors. A [illegible] and a practical [illegible] the principles set forth in [illegible] should be very useful to [illegible] who desires to comprehend [illegible] the reasons why [illegible] as they do. To the [illegible] such an understanding [illegible] aid in nursing [illegible].

[illegible] subject matter is [illegible] and up to date— [illegible] where it [illegible] theories [illegible] foundation [illegible] theories. [illegible] and references [illegible] well arranged [illegible] the [illegible] work [illegible] enable her [illegible] thoroughness those topics in which she is especially interested. A good index and a carefully arranged table of contents add to the ease of using the book; the statement of the problem to be considered which opens each chapter and the indicated experiments, thought-provoking questions, and exercises which close them add much to its value as a text. These last should be of especial value to the instructor who finds herself forced to teach this subject with a minimum of psychological background and teaching preparation.

To give a criticism of this book in a few words one might say that Miss Muse has succeeded in making an already good book much better.

EDITH M. POTTS, R.N.

New York

THE NEWER KNOWLEDGE OF NUTRITION. By E. V. McCollum, Ph.D., and Nina Simmonds, Sc.D. Fourth edition. 600 pages. The Macmillan Company, New York. Price, $5.00.

THE message which Dr. McCollum releases in the fourth edition of *The Newer Knowledge of Nutrition* is the latest word on experimental research in this field. The factual evidence herein recorded forms the basis of present nutritional teaching in educational programs.

This volume of nearly six hundred pages is a condensed yet clear and interesting presentation of the relation of foods to physical wellbeing. The discussion includes orientation with the earlier views and methods of dealing with nutritional problems, the dietary values of various food stuffs and properties of vitamins, the physiological results of deficiency diets and newer viewpoints in human nutrition.

Every argument set forth is abundantly substantiated by records of carefully controlled experiments; thirty-four illustrations, in addition to numerous tables and graphs, serve to further clarify the facts and conclusions.

The selected bibliography of over one thousand references provides a guide to specific research.

In both preventive and remedial programs, the well equipped worker welcomes authentic information relative to—

1. The skeletal development of children and vitamin D.
2. Diet and dentition.
3. The prevention and treatment of rickets by ultra-violet rays.
4. Fertility, nutrition and vitamin E.
5. Pellagra, diet and vitamin G.
6. Iodin and goiter.
7. The nursing mother and the diet of the infant.
8. Human diet and resistance to disease.

Therefore, for the social worker, the nurse, and nutritionist, *The Newer Knowledge of Nutrition* may wisely become a textbook from which to glean facts for practical health teaching.

Bertha B. Edwards

New York

The Normal Diet. By W. D. Sansum, M.D. Third edition. 134 pages. C. V. Mosby Company, St. Louis. 1930. Price, $1.50.

ALTHOUGH the third edition of Dr. Sansum's *The Normal Diet* is approximately the same size and contains the same number of chapters, there are some valuable additions.

The moving of the menus from the first chapter to the last is a logical improvement. The preceding chapters furnish the nutritional facts which are well illustrated in these menus.

The ninth chapter contains enlightening information in menu making which everyone who has the planning for feeding individuals or a family will find profitable. It tells the why of certain foods in the daily menu.

To read this book is a privilege which everyone would enjoy. It is valuable as a reference book in the library of any school in which nutrition is beng taught.

Bertha M. Wood

Massachusetts

Seventy Birth Control Clinics. By Caroline Hadley Robinson. 351 pages. Williams and Wilkins Company, Baltimore. 1930. Price, $4.00.

CAROLINE HADLEY ROBINSON has written a clear and comprehensive book on a subject which is of vital importance and which is rapidly becoming a matter for general discussion. In approximately 300 pages is contained a wealth of information gathered from an extensive survey of seventy birth-control clinics located in the United States, Great Britain, Germany, Austria, and Russia. The book is virtually two books in one, as the two parts are quite independent of each other.

In Part One are given the methods of organizing, staffing, operating, and maintaining such clinics. Many well planned and instructive diagrams accompany the text. A sample case-record form as worked out by the Committee on Maternal Health is given, and suggestions for efficiently taking and recording a history are made. This section should prove to be invaluable as a handbook for persons engaged in such work, especially physicians, nurses and social workers. No means or methods of birth control are given. Not only do our laws prohibit all interstate carriage of such information but the author has been so wise as to keep her book on a plane far

above that which would attract the curious-minded.

Part Two is an interesting and unbiased study of the "Social Implications of Birth Control." The effect on the quantity and quality of the population is studied and the benefits that one may expect are discussed. One of the concluding sentences sums up the feeling of the book:

> Of all the results to be hoped for from birth control, the best is this: that it should do its part toward making all children healthy and beloved.

The bibliography, containing references to more than 300 periodicals, reports, and books will be of inestimable value to those who are doing research work on this problem.

Caroline Hadley Robinson has assembled, in one volume, a vast amount of information. She has written a book which is thoroughly intelligible, convincing, and outstanding both for the information it contains and for its literary quality.

FRANCES E. SHIELDS, M.D.
New York

PRINCIPLES OF BACTERIOLOGY. By Arthur A. Eisenberg, M.D., and Mabel F. Huntly, R.N. Fifth edition, revised. 322 pages. Illustrated. C. V. Mosby Company, St. Louis. 1930. Price, $2.50.

THIS is a fifth edition of *Principles of Bacteriology* by Arthur A. Eisenberg. Miss Huntly has assisted with the revision of this edition in an admirable manner. It has been completely reset and every chapter rewritten. It is a hundred pages larger than previous editions and laboratory exercises have been included. The text has been brought up to date in respect to the recent developments in the field of bacteriology during the past years, and the presentation of the material conforms to the outline of the curriculum recommended by the League of Nursing Education. The text is so arranged that each chapter may be taken as a unit lesson comprising one hour of lecture and discussion and two hours of laboratory work, a total of forty-five hours in the course.

The book is well written and contains a sufficient amount of material for the usual course in bacteriology offered to students in the nursing profession. The chapter on pathogenic fungi is well written and should prove very valuable; however, the introducing of this rather difficult subject so early in the text (chapter two) is questionable. In a short course of this nature time hardly warrants the laboratory work on high school biology material (pp. 33–36); additional work on the compound microscope would be more valuable. The old classification of bacteria has been employed throughout the text. It is regrettable that several "loose" or doubtful statements have been made, *i. e.:* p. 22, "smallpox will produce the disease in a guinea pig or a rabbit if injected into their bodies"; p. 50, "one form of Penicillum *produces* Camembert cheese"; p. 57, "yeasts cause diseases of the ringworm group; they *grow well* on all *ordinary media*"; p. 91, in the titration of media the student is told to adjust the media so that it will be 1 per cent acid; p. 167, "food poisoning by bacteria is of two types: *ptomaine* poisoning, etc."; p. 206, pasteurization of milk at 160 degrees F. for twenty minutes; p. 210 "Staphylococcus aureus produces yellow pigment: S. citreus produces a green pigment."

The classification of yeasts (p. 52) is not generally accepted and is incomplete. Metchnikoff's Cellular Theory and Ehrlich's Humoral Theory (pp. 181–189) seem out of place

in a textbook for nurses, considering the time allowed for the course; it would seem that a discussion on undulant fever, which has been omitted, would be much more valuable than these two theories. The material on the relation of leucocytes to infection and on diseases due to animal parasites, found only in a very few textbooks of this type, is very good and should be very beneficial. This book contains fewer inaccuracies than the majority of textbooks on bacteriology for nurses and can be very favorably recommended.

Wisconsin F. E. Colley, M.S.

Lectures in Psychiatry. By William Allen White, M.D. 167 pages. Nervous and Mental Disease Publishing Company, Washington, D. C. 1928. Price, $2.00.

THIS book of less than 200 pages contains a vast amount of information on the major psychoses and is splendidly arranged for the student who has a limited amount of time to devote to the subject of psychiatry. It is also just the type of book for the student who may be majoring in mental diseases and disorders, because it will clarify and simplify the important facts of psychiatry which are often somewhat vague and obscure, even after one has spent long hours of study in trying to comprehend the unusual activities of the mind when it is impaired and functioning as it does when we consider it unsound.

The whole arrangement of the book is scientific and thus leads the reader from the simple to the complex and from the obvious to the obscure. In the introduction, Dr. White states very definitely that the various chapters of the book are not to be considered as lectures in the formal interpretation, but a presentation of clinical material. It is very evident that he has adhered to this idea throughout the entire book, because after a brief introduction to the subject, he presents cases manifesting the various symptoms of the mental disturbances. The vivid description of the mental activities and behavior of these patients presents a picture which gives the student the best possible idea of symptoms and the conditions of the epileptic, the dementia praecox, or the patient suffering with paresis.

The book is divided into twelve chapters, taking up as Dr. White indicates, only the major psychoses such as general paresis, mental deficiency, epilepsy, manic-depressive psychosis, involutional melancholia, and dementia praecox.

Illinois May Kennedy, R.N.

Books Received

Doctor and Patient. By Francis Weld Peabody, M.D. 95 pages. The Macmillan Company, New York. 1930. Price, $1.50.

A collection of four papers, prepared for widely differing occasions, by one who was described by Dr. [illegible] as "a voice that American medicine could ill afford to lose— [illegible]." This book [illegible] as follows: "The good physician knows his patients through and through, and his knowledge is bought dearly. Time, sympathy and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient." [illegible] "The Care of the Patient," [illegible] "the secret of the care of the patient is caring for the patient."

[illegible] By Edward A. [illegible], A.M., M.D., and [illegible] G. [illegible], A.B., M.D. [illegible] W. B. Saunders Co., Philadelphia. 1930. Price, $[illegible].

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